## Cumulative Assessments

## on UNIT 1

## Cumulative Assessment <br> On lesson 1 unit 1

1. Choose the correct answer.
a. In the equation : $8,100 \div 25=324$, the quotient is $\qquad$
A. 8,100
B. 25
C. 324
D. zero
b. $5,262 \div 57=92 R$
A. 18
B. 57
C. 92
D. 0
c. If the price of 15 same books is 3,645 L.E., then the price of each one is $\qquad$ L.E.
A. 234
B. 243
C. 324
D. 423
d. Marwan saves 45 L.E. weekly. After how many weeks will he save 720 L.E.?
A. 32,400
B. 765
C. 16
D. 675
e. $3,548 \div 23=$ $\qquad$
A. 154
B. 23
C. 514
D. 6
f. $984 \div 5=$ $\qquad$
A. 196 R 0
B. 5 R 4
C. 196 R 4
D. 196 R 5
2. Which situations in value division ?
a. There are 2,880 kilograms of oranges. A worker separates the oranges into boxes of 40 kg . How many boxes will be made?
b. There are 12 bags of fava beans. Each bag has a mass of 3 kilograms.

What is the total mass of the fava beans?
c. Fatma feeds her cat $\frac{1}{8}$ of a kilogram of cat food each day. How many days will 4 kg . of cat food last?
d. Manal has $2 \frac{1}{2}$ hours to complete her schoolwork. She finishes her math in $\frac{3}{4}$ of an hour. How much time remains for the rest of her schoolwork?
e. Nader has 8 liters of fruit juice. If he drinks $\frac{1}{4}$ L of juice each day, how many days will it take him finish all the juice?
3. A merchans paid 5,160 L.E. to buy 24 boxes of mango. Find the price of each box.
$\qquad$
$\qquad$

1. Complete the following.
a. The L.C.M of 5 and 7 is $\qquad$
b. $8,529 \div 25=341 \mathrm{R}$ $\qquad$
c. The common factor of all numbers is $\qquad$
d. In the opposite venn diagram the G.C.F is $\qquad$

e. The divisor in the equation : $16,692 \div 52=321$ is $\qquad$
2. Choose the correct answer.
a. $\qquad$ is a multiple of any number.
A. 3
B. 2
C. 1
D. 0
b. In the equation : $2,150 \div 25=86$, the remainder is $\qquad$
A. 0
B. 25
C. 86
D. 2,150
c. Which of the following are relatively prime numbers ? $\qquad$
A. 4 and 8
B. 12 and 18
C. 2 and 12
D. 9 and 4
d. In the opposite Venn diagram the L.C.M is $\qquad$
A. 0
B. 1
C. 15
D. 8
e. $2,574 \div 7=$ $\qquad$
A. 376 R 5
B. 367 R 5
C. 367
D. 376
3. Find G.C.F and L.C.M of 12 and 18 by two methods.
4. A factory produces 875 pieces of cloth weekly.

How many pieces did the factory produce daily?

## Cumulative Assessment $\quad 3 \quad$ Till lesson 3 unit 1

## 1. Choose the correct answer.

a. $20+25=$
A. $2(0+5)$
B. $5(5+2)$
C. $5(4+5)$
D. $20[0+5]$
b. $13,510 \div 23=587 \mathrm{R}$
A. 9
B. 8
C. 7
D. 6
c. Youssef saves 105 L.E. weekly. How much did he save daily?
A. 15
B. 98
C. 735
D. 112
d. From the opposite Venn diagram, the expression is
A. $10(6+35)$
B. $3(10+7)$
C. $7(10+3)$
D. $10(3+7)$


## 2. Complete the following.

a. $6(7+9)=42+$
b. $5 \times 3+5 \times 7=5(\square)$
c. $26,900 \div 43=$
d. The common multiple of all numbers is
3. Lara has 24 pens and 16 rules. She wants to put them in groups. What is the greatest number of groups that can be made so that each group has the same number of items? How many pens will be in each group? How many rules will be in each group? and write the expression which represents the total number of items.
4. Ameen paid 3,936 L.E. to buy 24 boxes of chocolate.

Find the price of each box.
$\qquad$
$\qquad$

## Cumulative Assessment <br> 4 <br> Till lesson 4 unit 1

1. Complete the following.
a. The L.C.M of 5 and 10 is
b. $5-2 \frac{1}{3}=$
c. Youssef works 210 hours monthly, then he works $\qquad$ hours daily.
d. $4 \frac{1}{7}+2 \frac{1}{2}=$
e. $60+90=30(\square)$
f. $2 \frac{1}{5}-1 \frac{1}{2}=$ $\qquad$
2. Choose the correct answer.
a. $\frac{2}{7}+\frac{1}{7}+\frac{5}{7}+\frac{3}{7}=$
A. $\frac{11}{28}$
B. $1 \frac{4}{7}$
C. $\frac{11}{14}$
D. $\frac{10}{7}$
b. $8[3+5]=$
A. $24+13$
B. $3(8+5)$
C. $24+40$
D. $11+13$
c. Which of the following are relatively prime numbers?
A. 8 and 9
B. 7 and 14
C. 2 and 3
D. 10 and 5
d. The G.C.F from the opposite Venn diagram is

A. $5 \times 2$
B. $5 \times 3$
C. $7 \times 2$
D. $2 \times 3$
e. $\frac{5}{6}-\frac{3}{4}=$
A. $\frac{1}{2}$
B. $\frac{8}{10}$
C. $\frac{1}{12}$
D. $\frac{1}{24}$
3. Samir ate $\frac{1}{4}$ of the cake and Self ate $\frac{1}{3}$ of the same cake.

How much of the cake has been eaten?
4. Use Venn diagram to find G.C.F and L.C.M of :
a. 15 and 10
b. 27 and 4

## Unit One Assessment



1. Choose the correct answer.
2. The G.C.F of 15 and 30 is
A. 15
B. 30
C. 5
D. 3
3. $24+16=$
A. $16[2+1]$
B. $8[3+2]$
C. $2[12+6]$
D. $4[6+12]$
4. $840 \div 35=$
A. 23
B. 24
C. 18
D. 16
5. $3 \frac{1}{2}+4 \frac{3}{4}=$
A. $8 \frac{1}{2}$
B. $7 \frac{4}{7}$
C. $7 \frac{4}{6}$
D. $8 \frac{1}{4}$
6. L.C.M of 7 and 14 is
A. 0
B. 1
C. 7
D. 14
7. $\frac{2}{7}+\frac{1}{7}+\frac{3}{7}+\frac{4}{7}=$
A. $\frac{7}{9}$
B. $1 \frac{2}{7}$
C. $1 \frac{3}{7}$
D. $1 \frac{4}{7}$
8. The opposite Venn diagram represent prime factorization of two numbers then G.C.F of them =
A. 2
B. 4
C. 6
D. 10

9. Complete.
10. $\frac{3}{5}+\frac{1}{4}=$
11. $8+12=4$
12. is a multiple of any number.
13. The opposite Venn diagram represent prime factorization of two numbers then G.C.F of them =

14. $2,253 \div 53=$
15. $5 \frac{2}{3}-2 \frac{1}{4}=$
16. $7[2+5]=14+$
17. The common factor for all number is

## 3. Choose the correct answer.

1. Which of the following are relatively prime numbers?
A. 4 and 6
B. 8 and 15
C. 8 and 18
D. 8 and 24
2. The L.C.M of 6 and $10=$ $\qquad$
A. 6
B. 2
C. 20
D. 30
3. $20+40=$
A. $20[0+20]$
B. $20[1+2]$
C. $20[0+2]$
D. 20
4. $1 \frac{1}{6}-\frac{2}{3}=$
A. $1 \frac{1}{3}$
B. $1 \frac{2}{3}$
C. $\frac{1}{2}$
D. $\frac{1}{4}$
5. The opposite Venn diagram represent prime factorization of two numbers then G.C.F of then =

A. 0
B. 6
C. 42
D. 1
6. $45+27=9$ [
A. $9+3$
B. $5+3$
C. 9-3
D. $4+2$
7. $\frac{1}{4}+\frac{1}{5}=$
A. $\frac{2}{9}$
B. $\frac{9}{5}$
C. $\frac{9}{20}$
D. $\frac{1}{20}$

## 4. Answer the following questions.

1. A merchant paid 5,287 L.E. to buy 17 boxes of apple. Find the price of each box.
2. Find L.C.M and G.C.F of two numbers 24 and 30 by using Venn diagram.
3. If Khaled has 28 pieces of apple and 35 pieces of banana, what is the greatest number of bags he can prepare with no pieces left over?
Write the expression which represents the total number of fruits.
4. Fatema found the packages of bananas. She opened 4 packages each package contains 8 and use some to make some banana pudding. This what remains of banana packages. $\frac{3}{8}, \frac{5}{8}, \frac{2}{8}, \frac{6}{8}$.
a. If you were to regroup the bananas into full packages, how many full packages could be made from the remaining bananas?
b. How much in terms of whole packages did Fatema actually use?

## Cumulative Assessments

## Cumulative Assessment $\quad 5$ Till lessons (1 \& 2) unit 2

1. Choose the correct answer.
a. The smallest natural number is $\qquad$
A. -2
B. -1
C. 0
D. 1
b. The opposite of the number -8 is
A. -8
B. 8
C. 0
D. -7
c. The greatest negative integer is
A. -1
B. -2
C. -3
D. -4
d. Which of the following is an integer?
A. $\frac{15}{2}$
B. $\frac{15}{3}$
C. $\frac{15}{4}$
D. $\frac{15}{6}$
e. Wael deposit of 1,000 L.E. in a bank represents as
A. 1,000
B. $-1,000$
C. 100
D. -100
f. Which of the following is nearest to zero? $\qquad$
A. -4
B. 4
C. -3
D. 2

## 2. Complete the following.

a. The smallest non-negative integer is
b. The G.C.F of 4 and 8 is
c. The number of integers between -2 and 3 is
d. The opposite of zero is
e. In the opposite number line, the integer which represents $A$ is $\qquad$
f. $17,834 \div 74=$ $\qquad$
$\qquad$ -

## Cumulative Assessment 6 Till lesson 3 unit 2

## 1. Choose the correct answer.

a. The number -1.5 in the form $\frac{a}{b}$ is
A. $-\frac{1}{5}$
B. $-\frac{5}{1}$
C. $-\frac{15}{10}$
D. $-5 \frac{1}{10}$
b. The best subset for the number 4 is $\qquad$
A. counting number
B. natural number
C. integers
D. rational number
c. The smallest positive integer number is $\qquad$
A. 3
B. 2
C. 1
D. 0
d. $\frac{1}{4}+\frac{2}{4}+\frac{3}{4}+\frac{2}{4}=$
A. 2
B. 1
C. $\frac{7}{8}$
D. $\frac{5}{8}$
e. Which of the following is the greatest number? $\qquad$
A. -2.7
B. -7.2
C. -1.2
D. -2.1
f. The G.C.F of 4 and 9 is
A. 1
B. 4
C. 9
D. 36
2. Write "a subset" or "not a subset".
a. Set of counting numbers is $\qquad$ of set of rational numbers.
b. Set of natural numbers is $\qquad$ of set of counting numbers.
c. Set of rational numbers is $\qquad$ of set of integers.
d. Set of integers is $\qquad$ of set of rational numbers.
3. Write "belongs" or "does not belong" :
a. 0 $\qquad$ to set of rational numbers.
b. $|-7|$ $\qquad$ to set of natural numbers.
c. $2 \frac{1}{2}$ $\qquad$ to set of integers.
d. $\frac{15}{3}$
to set of counting numbers.
4. A factory produces 92 pieces of cloth daily.

How many days does it produce 4,876 pieces of cloth?

## Cumulative Assessment 7 Till lesson 4 unit 2

1. Choose the correct answer.
a. The rational number between -2.5 and -2.4 is
A. -2.53
B. -2.43
C. -2.3
D. -2.32
b. In the equation : $2,595 \div 8=324 \mathrm{R} 3$, the remainder is $\qquad$
A. 2,595
B. 8
C. 324
D. 3
c. $14+21=7(2+\square)$
A. 3
B. 21
C. 4
D. 147
d. The opposite of zero is
A. -1
B. 1
C. 0
D. has no opposite.
e. The number $-2 \frac{1}{4}$ in the form $\frac{a}{b}$ is
A. $-\frac{4}{9}$
B. $-\frac{9}{4}$
C. $-\frac{7}{4}$
D. $-\frac{21}{4}$
2. Write the correct sign "<, = or >".
a. -3 $\square$ - 7
b. $4 \frac{1}{2} \square 5$
c. $-\frac{1}{2} \square 0$
d. $-\frac{7}{5} \square-1 \frac{2}{5}$
e. $0.4 \square-0.5$
f. $-12 \square-4$
g. 0 $\square$ $-2$
h. 2.5 $\square$ 2.47
3. Find two rational numbers lying between :
a. 2.4 and 2.5
b. $-\frac{3}{5}$ and $-\frac{1}{2}$
4. Arrange the following from greatest to least.

$$
3,-\frac{7}{2}, \frac{5}{2}, 3 \frac{1}{4}, 0,-11
$$

$\qquad$

1. Complete the following.
a. The opposite of $\left|-\frac{1}{2}\right|$ is
b. $|f| x \mid=4$, then $x=$ $\qquad$ or $\qquad$
c. The smallest counting number is $\qquad$
d. The number of integers between -4 and zero is $\qquad$
e. $|-2| \times|0|=$ $\qquad$
f. $15,015 \div 15=$ $\qquad$
2. Choose the correct answer.
a. $|-2.71|-2.7$
A. <
B. $>$
C. $=$
b. $|f|-99 \mid=x$, then $x=$
A. -99
B. 99
C. -9
D. 9
c. $|-11|>$ $\qquad$
A. 10
B. 11
C. 13
D. 101
d. The distance between -4 and its opposite on the number line is $\qquad$ unit[s]
A. zero
B. 4
C. 8
D. 16
3. In a lab, there are two freezers at different temperatures to preserve meat.

$$
\text { Freezer } \mathrm{A} \text { is }-1^{\circ} \mathrm{C} \text { and Freezer } \mathrm{B} \text { is }-5^{\circ} \mathrm{C}
$$

a. Which integer is greater?
b. Which temperature is colder? Explain how you know.
$\qquad$
$\qquad$

## Unit Two Assessment



## 1. Choose the correct answer.

1. Which of the following is an integer?
A. 3.75
B. $-\frac{3}{7}$
C. $\frac{7}{7}$
D. $2 \frac{1}{2}$
2. The smallest natural number is $\qquad$
A. $-1,000$
B. -1
C. 0
D. 1
3. $-\frac{3}{4} \bigcirc-\frac{1}{2}$
A. >
B. <
C. =
4. $|-8|>$
A. $|-9|$
B. $|-7|$
C. 9
D. 8
5. The opposite number of $-\frac{3}{8}$ is
A. $-\frac{3}{8}$
B. $\frac{8}{3}$
C. $-\frac{8}{3}$
D. $\left|-\frac{3}{8}\right|$
6. The integer which comes just before -3 is
A. -2
B. -4
C. -1
D. 0
7. The best subset for of the number -2 is $\qquad$
A. a counting number
B. an integer
C. a natural number
D. a rational number

## 2. Complete the following.

1. $|-3| \times|-4|=$
2. A negative number with an absolute value greater than 8 is
3. Absolute values of opposites are
4. The smallest positive integer number is
5. The integers between -4 and 1 are
6. $-3 \frac{1}{4}$ in the form $\frac{a}{b}$ is
7. From the opposite number line the integer for point A is $\qquad$ and its opposite is

8. The number of integers between -5 and 2 is

## 3. Choose the correct answer.

1. The rational number between -3.1 and -3.17 is
A. -3.2
B. 3.15
C. -3.14
D. -3.18
2. Which of the following is the greatest number?
A. -10
B. $|-10|$
C. -11
D. 9
3. The set of counting numbers $\qquad$ the set of rational numbers
A. belongs
B. does not belong
C. is a subset of
D. is not a subset of
4. The additive inverse of $|-2|$ is $\qquad$
A. 2
B. -2
C. $-\frac{9}{3}$
D. $-\frac{12}{4}$
5. $|-3|+|-2|=$
A. 5
B. -5
C. 6
D. 0
6. All integers are also $\qquad$ numbers.
A. counting
B. natural
C. rational
7. -3 $\qquad$ set of natural numbers.
A. belongs
B. does not belong
C. is a subset of
D. is not a subset of

## 4. Answer the following questions.

1. Arrange in a descending order :
$-8,|-7|, 2,0,-5$
The order is:
2. Find a rational number lying between $\frac{3}{5}$ and $\frac{2}{3}$
3. Write the following numbers in the opposite Venn diagram.
$34,2 \frac{1}{4}, 0.225,-10,0, \frac{-7}{8}$
4. Represent $-3 \frac{1}{4}$ on the number line.


## Cumulative Assessments on UNIT 3

## Cumulative Assessment <br> 9 Till lessons (1 \& 2) unit 3

1. Choose the correct answer.
a. In the algebraic expression: $5 x-4+5 m+3$, the two like terms are
A. 3 and 5 m
B. $5 x$ and 5 m
C. 3 and - 4
D. $5 x$ and 3
b. All the following are integers except $\qquad$
A. -4
B. $\frac{10}{5}$
C. $\frac{13}{5}$
D. $\frac{0}{5}$
c. The number of terms of the expression :5-2m-3m+4is $\qquad$ terms.
A. 5
B. -2
C. -3
D. 4
d. The coefficient in the algebraic expression: $4 x-3$ is $\qquad$
A. 4
B. $4 x$
C. -3
D. $x-3$
e. If the price of 12 pens of same kind is 414 L.E., then the price of each one is $\qquad$
A. 35.4
B. 426
C. 34.5
D. 34
2. Complete the following.
a. In the opposite Venn diagram
 the G.C.F is
b. The constant in the expression $3 y+2 x-5$ is $\qquad$
c. The number of terms of the expression: $3+4 z$ is $\qquad$
d. $18+12=6(-+2)$
e. The smallest counting number is $\qquad$
f. The opposite of $|-4|$ is $\qquad$
3. Write [numerical expression or algebraic expression] for each of the following:
a. $5(3+4)$

b. $2 m-3$
c. $5-x+3 y$
d. $4+(5-3)+1$
[
4. Order from greatest to least.

$$
-\frac{7}{10}, \frac{3}{5}, 0.4,-\frac{4}{5}, \text { zero }
$$

## Cumulative Assessment 10 Till lesson 3 unit 3

## 1. Complete the following.

a. The verbal expression for " $2 m-7$ " is $\qquad$
b. The number of integers between 4 and its opposite is $\qquad$ integers.
c. The algebraic expression for "a number less 7 " is $\qquad$
d. $|-4|+|-7|=$
e. Ramy works $x$ hours daily, then the algebraic expression for the number of worked hours monthly is $\qquad$
2. Choose the correct answer.
a. Twice the difference of a number and 5 is $\qquad$
A. $2 y+5$
B. $2 y-5$
C. $2(y+5)$
D. $2(y-5)$
b. Laila saved $n$ L.E. and her mother gave her 5 L.E., she will have $\qquad$ L.E.
A. $n-5$
B. $n+5$
C. 5 n
D. $5-\mathrm{n}$
c. Which of the following are like terms?
A. $3 x, 3 y$
B. $x y, y z$
C. $31 x, 13 x$
D. $x, y$
d. The distance between the opposite of 3 and 0 on the number line is $\qquad$ unit[s]
A. 3
B. -3
C. 0
D. 6
e. The rational number between 0.3 and 0.4 is $\qquad$
A. 0.2
B. 0.42
C. 0.32
D. 0.432
f. Eslam is $x$ years old now, how old will he be after 6 years?
A. $x \div 6$
B. $6 x$
C. $6+x$
D. $x-6$
3. From the opposite Venn diagram, complete :
a. The value of $m$ is
$\qquad$ b. The value of $n$ is

c. G.C.F is $\qquad$ d. L.C.M. is $\qquad$
4. Ahmed ate $x$ sandwiches and his father ate 6 sandwiches. If the price of each sandwich is 5 L.E., write the algebraic expression to find the cost of all sandwiches.

1 Complete the following:
(2) If $13 \times 35=455$, then $455+13=$
(-) If $6,048+24=252$, then $24 \times 252=$
C If $976=61 \times 16$, then $980+61=16$, and the remainder is $\qquad$
() If $2,000+54=37$ and the remainder is 2 , then $54 \times 37=$ $\qquad$
(e The number that, if divided by 34 , the quotient will be 102 , and the remainder is 11 , is $=$ $\qquad$
2 Divide using the standard division algorithm:
(



3 Answer the following:
(a) A primary school has 24 classrooms, each class has 50 pupils. How many pupils does the school have?

(- The number of rooms in one of the hotels reached 300 .
These rooms are divided evenly over 12 floors. How many rooms are there on each floor?


PONY - Math Prim. 6 - Firal Torm 07

## on Lesson 2

1 Complete the following:
Unit 1
(2) Prime numbers greater than 10 and less than 20 are
(b) Prime factors of 18 are $\qquad$ .

C A number whose prime factors are $2,3,7$ is $\qquad$ .
() The greatest common factor of any two prime numbers is $\qquad$ .
© The common multiple of all numbers is $\qquad$ .

2 Choose the correct answer:
(2) The greatest common factor of two relatively prime numbers is $\qquad$ ( 0 © 1 © their sum © product )
(b The least common multiple of two relatively prime numbers is $\qquad$ .. ( 0 © 1 © their sum ㅇ their product )

C The greatest common factor of the numbers 10 and 9 is $\qquad$ .
(d) 8 and are relatively prime numbers.
( ( The two numbers $\qquad$ are relatively prime numbers.

$$
\text { ( } 2 \text { and } 4 \odot 4 \text { and } 6 \odot 6 \text { and } 9 \odot 9 \text { and } 4 \text { ) }
$$

3 The GCF and LCM for the 16 and 12 using a Venn diagram:


GCF =
LCM =

$16=$
$12=$ $\qquad$

## Unit 1

1 Choose the correct answer:
(a) $4 \times(2+9)=$

$$
((4 \times 2)+(4 \times 9) \text { © } 4 \times 2+9 \text { © } 4 \times 2 \times 9 \text { © }(4+2) \times(4+9))
$$

(b) $(6 \times 3)+(6 \times 2)=$

$$
(6 \times 3 \times 2 \text { © } 6+(3 \times 2) \text { © } 6 \times(3+2) \text { © } 6 \times 3 \times 6 \times 2)
$$

C $\quad \times(5+1)=(7 \times 5)+(7 \times 1)$ ( 5 © 1 © 7 © 6 )
(C) The GCF for 18 and 12 , is ( 6 © 9 © 2 (1) 3 )
(e) The common multiple of all numbers is $\qquad$


2 Write the number expression for each of the following figures:
(a)

b

$\times 1+$ $\qquad$

3 Sameh wanted to divide the 21 pens and 35 notebooks into groups, so that each group contained the same number of supplies. What is the largest number of sets that can be made for each type of supplies so that each set has the same number? How many pens are in each group? How many notebooks are in each group?
$\qquad$
$\qquad$

## res

## Unit 1

1 Choose the correct answer:
(a) $\frac{3}{5}+\frac{9}{10}=$
(b) $1 \frac{4}{5}+2 \frac{1}{3}=$
C $3 \frac{1}{2}-\quad=1 \frac{3}{8}$
(c) $3 \frac{5}{6}+1 \frac{1}{3}=4+$
$\left(\frac{1}{10}\right.$ © $1 \frac{1}{2}$ © $1 \frac{1}{5}$ © $\frac{12}{15}$ )
( $4 \frac{2}{15}$ © $3 \frac{2}{18}$ © $4 \frac{5}{8}$ © $3 \frac{5}{8}$ )
( $2 \frac{5}{8}$ © $1 \frac{1}{8}$ © $1 \frac{5}{8}$ © $2 \frac{1}{8}$ )
( 2 (अ $1 \frac{1}{6}$ © $2 \frac{2}{6}$ © $4 \frac{2}{3}$ )

2 Complete the following:
(a) $-1 \frac{2}{3}=2 \frac{1}{2}$
(b) $2 \frac{1}{2}-1 \frac{7}{8}=$
C $2 \frac{1}{3}+1 \frac{1}{4}=$ $\qquad$

3 Answer the following:
(a) Hanaa has $15 \frac{1}{2}$ pounds, She bought a ruler for $4 \frac{1}{2}$ pounds and a pen for $5 \frac{1}{2}$ pounds. How much money is left with Hanaa?
$\qquad$
$\qquad$
(b) You buy a package of dates containing 16 dates. You had already eaten one when you remembered that you owed your friend half a packet of dates.
(1) What fraction represents the number of fruits that you have to give to your friend?
(2) After giving your friend his share, what fraction is the remaining amount of the fruit packet?

## Assessments on Units

## Assessmenis on Unit

## First: Choose the correct answer:

(2) If $12 \times 34=408$, then $408 \div 12=$ $\qquad$ . $\quad(12 \odot 34 \odot 408 \odot 36)$
(b) If $574=41 \times 14$, then $580 \div 41=14$, and the remainder is $\qquad$ ..
(14 © $41 \odot 6$ © 16)
© A number that, if divided by 8 , the quotient will be 16 , and the remainder is 3 .
( 131 © 128 © 19 © 24 )
(a)
is a factor of all numbers.
( 0 © 1 © 2 © 3 )
(e) $7,5,3$, and 2 are $\qquad$ numbers. ( even © odd © prime © otherwise )
(f) The greatest common factor of any two prime numbers is $\qquad$ ...
( 0 © 1 © their sum © their product )
(9) The least common multiple of two prime numbers is $\qquad$ .
( the greatest number © 1 © their sum © their product )
(1) $6 \times(7+5)=$ $\qquad$

$$
((6 \times 7)+(6 \times 5) \odot 6 \times 7+5 \odot 6 \times 7 \times 5 \odot(6+7) \times(6+5))
$$

(1) $(2 \times 8)+(2 \times 3)=$ $\qquad$

$$
(2 \times 8 \times 3 \odot 2+(8 \times 3) \odot 2 \times(8+3) \odot 2 \times 8 \times 2 \times 3)
$$

(1) $1 \frac{3}{4}+2 \frac{1}{2}=$ $\qquad$ $\left(4 \frac{1}{4} \odot 3 \frac{1}{4} \odot 3 \frac{4}{6} \odot 4\right)$

Second: Complete the following:
(a) If $1,050 \div 12=87$, and the remainder is 6 , then $12 \times 87=$ $\qquad$
(b) If $351 \div 27=13$, then $13 \times 27=$ $\qquad$ ..
© The prime number has $\qquad$ factor(s).
(4) PONY - Math Prim. 6 - First Term
(c) All prime numbers are odd numbers, except $\qquad$ is an even number.
© is the smallest prime number.
(f) Any two numbers are relatively prime numbers if their greatest common factor is $\qquad$
(9) The least common multiple of any two prime numbers is
(b) $8 \times(2+7)=($ $\qquad$ $)+(\ldots x$ .......)
(i) $3 \frac{1}{5}+$ $=5 \frac{1}{2}$

## Third: Answer the following:

(1) Find the result:
(a) $6,527+9=$

(b) $2,592 \div 24=$

$\square$
(C) $5 \frac{3}{8}+2 \frac{5}{6}=$
(c) $7 \frac{1}{4}-3 \frac{3}{5}=$
(2) A compound consists of 840 housing units, each building within this compound consists of 15 housing units.

How many buildings in this compound?

## on Lessons 1 \&.2

1 Choose the correct answer:
(a) The integer that expresses (the depth of a well of 5 meters) is $\qquad$

$$
(-5 \text { © } 5 \text { © }-10 \text { © } 10)
$$

(b) An integer between the numbers 2 and -2 is …... ( -1 (1) -3 (1) 3 (1) -4 )

C The number that comes just after -9 is ( -10 하 -8 다 10 다 8 )
(C) -25 -12
(> (1) = © < )
© $6<$ $\qquad$

$$
\text { ( }-8 \text { © } 8 \text { © }-9 \text { © }-7 \text { ) }
$$

2 Complete the following:
(a The integer that expresses "move forward 6 steps" is
(b) Integers between -3 and 2 are $\qquad$ ..
(C) The additive inverse of 8 is $\qquad$ ....
(d) The smallest positive integer is $\qquad$ ..
© $-5,-4,-3,-2$,
3 Arrange the following integers in an ascending order:

$$
-3,9,-32,0,2
$$

4 Locate each of the following points on the number line:

| Point | A | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number | 0 | 3 | -2 | 5 | -3 |

1 Choose the correct answer:
(a) The rational number represented on
 the corresponding number line is $\qquad$

$$
\text { ( } 4 \frac{1}{2} \text { © } 5 \frac{1}{2} \text { © }-5 \frac{1}{2} \text { © }-4 \frac{1}{2} \text { ) }
$$

(b) -2 is a / an $\qquad$ ...
( counting number © natural number © negative integer © odd number )
© All integers are $\qquad$ numbers.
( counting © natural © even © rational )
(d) The additive inverse of -5 is $\qquad$ . ( 5 © -5 (1) $-\frac{1}{5}$ © $\frac{1}{5}$ )
e $-2 \frac{3}{4}$ is between the two whole numbers $\qquad$ ..
( 2,3 © 1,2 © $-2,-3$ © $-1,-2$ )
2 Complete each of the following:
(a) The additive inverse of 5.9 is $\qquad$ ..
(b) The rational number -5.6 lies between the two whole numbers and $\qquad$ on the number line.

C All natural numbers are $\qquad$ numbers and $\qquad$ numbers.
(c) -2.5 in the form $\frac{a}{b}$ is $\qquad$ .
(e) $-\frac{7}{4}$ in the decimal form is $\qquad$
3 Arrange the following numbers in a descending order:

$$
7.7,7,-3.8,7 \frac{1}{2},-3 \frac{1}{5}
$$

1 Choose the correct answer:
(a) $|-1.5|=$ (1.5 © -1.5 © 15 © -15 )
(B) $|6|=$ $\qquad$ ( 6, 아 -6 (2) 3 © -3 )
(C) The absolute value of 2.7 is (-2.7 © 2.7 © 27 ㄷ - 27 )
(d) The absolute value of "zero" is $\qquad$
(e The larger the absolute value, the $\qquad$ zero.
( closer number to © farther number to © equal number to )
2 Complete the following:
(2) If $5=|\mathrm{m}|$, then $\mathrm{m}=$ $\qquad$ or $\qquad$
(6) If $\mathrm{k}=|-3.5|$, then $\mathrm{k}=$ $\qquad$ ..
(C) If $\mathrm{k}=|9|$, then $\mathrm{k}=$ $\qquad$ ...
(d) Opposite numbers on a number line have the $\qquad$ absolute values.
(e) $\qquad$ is closer to the number zero. ( -2.5 아 0.7 )

3 Arrange the following numbers in a descending order:

$$
0.75,-\frac{1}{8},\left|-\frac{1}{2}\right|,-\frac{1}{4},|0.25|
$$

4 Complete using (<, = or > ):
(a) -0.9
$|-0.9|$
(b) $|-1.5|$
-1.5
C $\left|3 \frac{1}{4}\right|$
$\left|-4 \frac{1}{3}\right|$
(c) $-\frac{2}{5}$
$\left|-\frac{1}{2}\right|$

# on Units 1-2 

## Assessment

## First: Choose the correct answer:

(2) If $6,688=19 \times 352$, then $6,694 \div 19=352$, and the remainder is
( 14 © 41 © 6 © 16)
(b) The greatest common multiple of 9 and 8 is ( 9 © 8 © 1 © 72 )
(c) The prime factors of 20 are $\qquad$ $(2 \times 10$ © $5 \times 4$ © $2 \times 2 \times 5$ © $1 \times 20)$
© All negative numbers are $\qquad$ zero. (< © = © > - (1) $\geqslant$ )
(e) $-25 \quad-12$ (< © = © > ( © > )

Second: Complete the following:
(a) $6 \times(7+5)=(\ldots \times \ldots)+(\ldots \times \ldots)$
(b) $\qquad$ comes just before -1 .

C is the opposite number of " 10 ".
(d) The integer that expresses (The value of the loss is 20 LE) is
(e) If $7=1 \mathrm{a} \mid$, then $a=$ or

## Third: Answer the following:

(a) If the total price of 25 books is 2,825 pounds, then what is the price of one book?
(b) Ahmed wants to plant 45 sunflower plants and 81 corn plants in his garden. If he put the same number of plants in each row, what is the greatest number of rows can he make?
$\qquad$
$\qquad$


PONY - Math Prim. 6 - First Term

## Assessment

## First: Choose the correct answer:

© The rational number represented on
 the corresponding number line is $\qquad$

$$
\left(4 \frac{2}{2} \text { © } 5 \frac{2}{3} \text { © }-4 \frac{2}{3} \text { © }-5 \frac{2}{3}\right)
$$

(b) 12 and are relatively prime numbers.
( 16 잉 15 이 35 )
(C) The opposite of $6>$ (-5 © 5 © -7 © 7)
(c) $\frac{3}{5}-\frac{5}{3}$ (> (1) = © (1) < (ㄷ) $\geqslant$ )
(e) -4 is to the right of $\qquad$ on the number line. (-5 아 두 - 3 )

Second: Complete the following:
(a) The additive inverse of $\qquad$ is itself.
(b) $-\frac{5}{4}=$ $\qquad$ (In the decimal form)
(c) $\qquad$ $\times($ (..... + ........ $)=(2 \times 8)+(2 \times 6)$
© $\qquad$ is a number whose prime factors are $3,2,7$.
(e) $3 \frac{1}{5}+$ $\qquad$ $=8 \frac{1}{2}$

Third: Answer the following:
(1) Find the results :
(a) $3 \frac{5}{8}+4 \frac{1}{6}=$ $\qquad$
(b) $4 \frac{1}{2}-1 \frac{3}{4}=$
(2) Complete the following using the opposite Venn diagram.
(a) The two numbers are $\qquad$ and $\qquad$ .
(b) The GCF is $\qquad$ C The LCM is $\qquad$


1 Complete following:
(a) The algebraic factor in the term " $2.5 x$ " is $\qquad$ ...
(b) The coefficient in the algebraic term $3 \times y$ is $\qquad$ .
C The number of terms in the algebraic expression $3 \times y-25$ is $\qquad$
(C) Like terms in the algebraic expression $6 x+6 y+2 x+6$ are $\qquad$
(e) The constant in the algebraic expression $5 \mathrm{~b}+3.2$ is $\qquad$ .

2 Choose the correct answer:
(a) Like terms in the algebraic expression $2 \mathrm{a}+3 \mathrm{ab}+3$ are $\qquad$ ..

$$
\text { ( } 2 \mathrm{a}, 3 \mathrm{a} b \odot 3 \mathrm{a}+3 \odot 2 \mathrm{a}, 3 \text { © none ) }
$$

(b) The coefficients in the algebraic expression " $5 a+3 b+8-2.5$ " are
$\qquad$ .
$(5,3$ © $8,2.5$ © $5 \mathrm{a}, 3 \mathrm{~b}$ © $5,3,8,2.5)$
© Ahmed and Tamer have 60 pounds, if what Ahmed has is $x$ pounds, then what Tamer has is $\qquad$ pounds. $(60+x$ ( $60-x$ (1) $60 x$ क $60 \div x)$
(d) The number of terms of the algebraic expression $2.5 x+2 x y-4$ is... (3 © 4 © 5 아 6 )
(e Constants in the algebraic expression: $5 a+\frac{2}{3}-2 b+4$ are $\qquad$

$$
\left(5,2 \odot \frac{2}{3}, 4 \odot 5, \frac{2}{3} \odot 2,4\right)
$$

3 Complete using the mathematical expression " $5 x+2 y+6 x+3$ ":
(a) The number of terms of a mathematical expression is $\qquad$ .
(b) Like terms are $\qquad$ .

C Coefficients are $\qquad$ .
© Constants are $\qquad$
40 PONY - Math Prim. 6 - First Term

## 1 Complete the following:

(a) The verbal form for the algebraic expression $\frac{a}{5}+3$ is
$\qquad$
(b The verbal form for the algebraic expression 6 m is
$\qquad$ ...
( The value that expresses the verbal form "three times b " is $\qquad$ ...
(C) Ahmed is now "y" years old. How old was he 3 years ago? $\qquad$ .
(e Ahmed shared a pizza pie equally with 4 of his friends, each of whom had their share of the pizza is ( $\qquad$
(2) Choose the correct answer:
(a The number " m " plus 18 and the result divided by $3=$ $\qquad$ .

$$
\left(3 \div(m+18) \odot(m+18) \div 3 \odot \frac{m}{3}+18 \odot m+\frac{18}{3}\right)
$$

(b) If "b" is an integer, then the integer immediately next to it is $\qquad$

$$
\left(b+1 \odot b-1 \odot 2 b \odot \frac{b}{2}\right)
$$

© A square of side length " s " cm has a perimeter of $\qquad$ cm

$$
\left(s+4 \odot s-4 \odot \frac{s}{4} \odot 4 s\right)
$$

(d) Two numbers whose sum is 35 and one of them is " $w$ ", then the other number is $\qquad$ .

$$
(w+35 \text { © w-35 © } 35-w \text { © } 35 w)
$$

(e The price of a kilogram of meat increased by 120 pounds. If its price becomes " $x$ " after the increase, then its price before the increment is

$$
(x+120 \text { © } x-120 \text { © } 12-x \text { © } 120 x)
$$

(3) Bassem runs one kilometer in 15 minutes.

Write a mathematical expression that expresses the number of kilometers that Bassem runs in " t " minutes.

October Questions Bank

## Question 01

## Choose the correct answer

(1) The coefficient in the expression $6 d+2$ is $\qquad$
(a) 6
(b) $d$
(c) $6 d$
(d) 2
2) The smallest number from the following is $\qquad$
(a) 0.11
(b) 0.101
(c) 0.20
(a) 0.3
(3) The greatest negative integer is $\qquad$
(a) 1
(b) -1
(c) 0
(a) $-1000,000$
(4) $\frac{3}{7}+\frac{2}{5}=$ $\qquad$
(a) $\frac{5}{12}$
(b) $\frac{29}{35}$
(c) $\frac{1}{2}$
(a) 1
(5) $3(5+4)=(3 \times \ldots \ldots)+(\ldots \ldots \times 4)$
(a) 5,3
(b) 5,4
(c) 3,5
(a) 3,4
(6) The opposite of the number 15 is $\qquad$
(a) 15
(b) $|15|$
(c) - 15
(d) $|-15|$
(7) The additive inverse of $I-4 \mid$ is $\qquad$
(a) 4
(b) 141
(C) -4
(d) |-4|
(9) Which of the following are relatively prime numbers?
(a) 2,6
(b) 3,21
(C) 9,12
(d) 8,15
(10) The LCM of 5 and 15 is $\qquad$
(a) 5
(b) 15
(c) 1
(a) 3
(11) The GCF of 5 and 15 is $\qquad$
(a) 5
(b) 15
(c) 1
(d) 3
(12) The common factor of all number is $\qquad$
(a) 0
(b) 1
(C) 2
(d) 100
(13) The GCF of any two different prime numbers is $\qquad$
(a) 0
(b) 1
(c) itself
(d) The smallest
(14) The LCM of any two different prime numbers is $\qquad$
(a) 1
(b) The product of
(c) The smallest
(d) The greatest
(15) The dividend in $321 \div 12=26 \mathrm{R9}$ is $\qquad$
(a) 321
(b) 12
(c) 26
(d) 9
(16) The divisor in $321 \div 12=26 \mathrm{R9}$ is $\qquad$
(a) 321
(b) 12
(c) 26
(d) 9
17) Which of the following is nearest to zero ?
(a) 5
(b) -1
(c) - 3
(d) 3
(18) The number -3.5 in the form $\frac{a}{b}$ is $\qquad$
(a) $\frac{7}{2}$
(b) $\frac{3}{5}$
(c) $\frac{35}{10}$
(a) $-\frac{7}{2}$
(19) Which of the following is the greatest number?
(a) -5.3
(D) -3.5
(c) 3.5
(d) 5.3
(20) Which of the following is the smallest number?
(a) -3.2
(D) -2.3
(c) -0.5
(d) -0.01
(21) The best subset for the number -3 is
(a) Counting numbers
(b) Rational
(C) Integers
(d) natural $\begin{aligned} & \text { numbers }\end{aligned}$
(22) The best subset for the number 5 is $\qquad$
(a) Counting
(D) Rational
(c) Integers
(a) natural $\begin{aligned} & \text { numbers }\end{aligned}$
(23) The best subset for the number 5.2 is $\qquad$
(a) Counting numbers
(b) Rational
(c) Integers
(d) natural
(24) The Set of counting numbers $\qquad$ The set of rational numbers
(a) Belong
(b) not belong
(c) subset
(d) Not subset
(25) The Set of integers $\qquad$ The set of natural numbers
(a) Belong
(b) not belong
(c) subset
(d) Not subset
(26) -5 $\qquad$ The set of rational numbers
(a) Belong
(b) not belong
(c) subset
(d) Not subset
(27) $\frac{8}{2}$ $\qquad$ The set of counting numbers
(a) Belong
(b) not belong
(c) subset
(d) Not subset
(28) $\frac{9}{2}$ The set of natural numbers
(a) Belong
(b) not belong
(C) subset
(d) Not subset

29 The distance between - 6 and its opposite on the number line is $\qquad$
(a) 6
(b) -6
(C) 12
(d) - 12
(3) $|-15|=m$, then $m=$ $\qquad$
(a) -15
(b) 15
(c) Both $\mathrm{a}, \mathrm{b}$
(d) neither
(31) $|x|=5$, then $x=$ $\qquad$
(a) -5
(b) 5
(c) Both $\mathrm{a}, \mathrm{b}$
(d) neither
32. The number of terms in the expression $6 d+2-5 n \div 4$ is $\qquad$ terms
(a) 1
(b) 2
(C) 3
(d) 4
(33) The like terms in the expression $2 f+2-2 k-8$ is $\qquad$
(a) $2 \mathrm{f}, 2 \mathrm{k}$
(b) 2,8
(C) $2,2 \mathrm{k}$
(d) $2 \mathrm{~F}, 2$
(34) The constant in the expression $6 d+2-5 n$ is $\qquad$
(a) 6
(b) d
(c) $5 n$
(d) 2
(35) $\frac{2}{7}+\frac{1}{7}+\frac{2}{7}+\frac{5}{7}=$ $\qquad$
(a) $\frac{7}{7}$
(b) $\frac{10}{28}$
(C) $\frac{8}{7}$
(d) $1 \frac{3}{7}$
(36) $\frac{3}{6}+\frac{1}{2}=$ $\qquad$
(a) $\frac{1}{2}$
(b) $\frac{3}{6}$
(C) 1
(d) $\frac{4}{8}$
(37) Which of the following is numerical expression?
(a) $3(6 d+5)$
(b) $8+6$
(C) $2 n-9$
(d) $4-\mathrm{h}$
(38) Which of the following is algebraic expression?
(a) $4(6+5)$
(b) $4-1+2$
(C) $20 \div 9$
(d) 3 h
(39) The integer which comes just after -1 is $\qquad$
(a) 0
(b) 1
(C) -2
(4) The opposite Venn diagram represent prime factorization of two numbers then GCF of them is $\qquad$

(a) 0
(b) 1
(c) 5
(d) 2
41) All counting numbers are also $\qquad$
(a) natural numbers
(b) Rational numbers
(c) Integers
(d) All of them
(42) $|-10|<$ $\qquad$
(a) |-9.99|
(b) $|-9|$
(C) $|-100|$
(a) $|-5|$
(43) $5(8+\ldots .) \times$.7 is a numerical expression.
(a) d
(b) $4 f$
(c) 5
(d) $19+n$
(44) $5(8+\ldots . .) \times$.7 is a algebraic expression.
(a) 5
(b) $5 m$
(C) $18+2$
(d) 13
(45) The verbal expression for $2 x+4$ is $\qquad$
(a) 2 multiplied by $x$ decreased by 4
(b) 2 multiplied by $x$ more than 4
(c) Double a number $x$ increased by 4
(d) Double a number b increased by 4
(46) The verbal expression for $5(m-3)$ is $\qquad$
(a) 5 multiplied by $m$ decreased by 3
(b) The difference between $m$ and 3 multiplied by 5
(c) The sum of $m$ and 3 multiplied by 5
(d) The product of $m$ and 3 multiplied by 5
(47) Adding 5 to third a number = $\qquad$
(a) $5+3 x$
(b) $3 x+5$
(c) $\frac{1}{3} x-5$
(a) $\frac{1}{3} x+5$
(48) The integer that is one less than 0 is $\qquad$
(a) 0
(b) 1
(c) -2
(d) - 1
(49)

The opposite Venn diagram represent prime factorization of two numbers then the two numbers are $\qquad$
(a) Prime
(b) Relatively prime
(c) Odd
(d) even

## Question 02

## Complete

(1) The smallest positive integer is $\qquad$
(2) The smallest non-negative integer is $\qquad$
(3) The greatest non-positive integer is
(4) The opposite Venn diagram represent prime factorization of two numbers then LCM of them $=$ $\qquad$

(5) The integers between -5 and -1 are $\qquad$
(6) The number of integers between -5 and -1 are. $\qquad$
(7) 51 $\qquad$ $+$. $\qquad$ $\}=(5 \times 4)+(5 \times 3)$
(8) $4+10=21$ $\qquad$ $+$ $\qquad$〕
(9) $6 \frac{3}{10}-2 \frac{1}{5}=$ $\qquad$
(10) The opposite of the number 50 is $\qquad$
(11) The LCM of 5 and 7 is $\qquad$
(12) The GCF of 5 and 7 is $\qquad$
(13) The GCF of 8 and 9 is
(14) The LCM of 8 and 9 is $\qquad$
(15) $864 \div 24=$ $\qquad$
$\qquad$ is a multiple of all numbers.
$\qquad$ is a factor of all numbers.
(18) $984 \div 5=$
(19) The quotient in $321 \div 12=26 \mathrm{R9}$ is $\qquad$
(20) The number -2.5 in the form $\frac{a}{b}$ is $\qquad$
(21) The opposite of zero is $\qquad$
(22) The smallest positive integer is
(23) The opposite Venn diagram represent prime factorization of two numbers then GCF of them $=$ $\qquad$

(24) $1-181 \times 0=$ $\qquad$
(25) The smallest counting number is $\qquad$
(26) The smallest natural number is $\qquad$
(27) The number of terms in the expression $6 \mathrm{~h}+2 \mathrm{~d}-3 \mathrm{x}$ is $\qquad$ terms
(28) The opposite of the number I-8.2। is $\qquad$
(29) The opposite of the number $I 8.2 I$ is.
(30) The two integers that -5.6 is lying between them are $\qquad$ and
(31) The two integers that $\frac{8}{3}$ is lying between them are $\qquad$ and $\qquad$
(32) The integer which comes just before - -9 is $\qquad$
(33) $\qquad$ is one more than -5 .
(34) All integers are also $\qquad$ numbers
(35) Twice the difference between a number and 6 is $\qquad$
(36) $5-3 \frac{2}{5}=$ $\qquad$
(37) The constant in the expression $5 f+2 b+3$ is $\qquad$
(38) The algebraic expression of a number less than 5 is $\qquad$
(39) The algebraic expression of a number less 5 is $\qquad$
(40) The coefficient in the expression $-5 d+3$ is $\qquad$
(41) The product of 5 and a number $t$ is $\qquad$
(42) $|-5|+3=$ $\qquad$
(43) The additive inverse of - 6 is

## Question 03 Compare using ( < , > or = )

(1)
(2)
(3)
(4)
(5)

0
(6)
(7)
(8)
(9)
(10)
(11)
(12)
(13)
(14) 2.5
$-\frac{7}{5}$
2.42
5.245
-50
-5
32.02
-0.8
$-(-5)$
$\qquad$
$\qquad$0

12

Any negative integer
Any positive integer

$$
\begin{array}{r}
\frac{5}{2} \\
-1 \frac{2}{5}
\end{array}
$$

$$
2.6
$$

$$
6
$$

-|-50|

The additive inverse of 9
$-100$
0.6

## Question 04 Answer the following

(1) Arrange the following integers ascendingly: $-9,-12,20,0,-6,1,1-12 \mid$
(2) Mohamed has $x$ pounds. he bought a book for 60 pounds. write the algebraic expression of how much money with him now .
$\qquad$
(3) Rozana paid 3,888 pounds to buy 24 candies. Find the price of each box.
(4) Find three rational numbers between 3.5 and 3.6
(5) Find three rational numbers between $\frac{2}{5}$ and $\frac{3}{5}$
(6) The price of 12 pens is 408 LE , find the price of each pen.
(7) Layan ate $n$ sandwiches and Jana ate 5 sandwiches. if the price of one sandwich is 4 pounds . write the algebraic expression to find the price of all sandwiches.
(8) If Yousef is $x$ years old now . write the algebraic expression of his old after 6 years?
(9) Karem saved e LE. Zyad gave him 40 LE . write the algebraic expression of how much money with him now .
(10) Maya bought $3 \frac{1}{5} \mathrm{~kg}$ of orange and $4 \frac{3}{10} \mathrm{~kg}$ of apple. what is the total mass of them ?
(11) Represent $-2 \frac{2}{5}$ on the number line.

(12)

A class has 20 boys and 12 girls . Mr Mahmoud Elkholy want to distribute them into equal groups. What is the greatest number of groups ?, How many boys and girls in each group ?,then write the expression which represent that.
$\qquad$
(13) From the opposite Venn diagram:
$a-$ The value of $b=$
$b-$ The value of $c=$
$\qquad$
c- The GCF =
d- The LCM $=$


Represent $(-5,-3,0,-6,2)$ at the number line.

$$
\begin{aligned}
& \lessdot+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots+\cdots \\
& \begin{array}{llllllllllll}
-7 & -6 & -5 & -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4
\end{array}
\end{aligned}
$$

(14) Find the LCM and the GCF of 18 and 24 , using venn diagram.

## تم بحمد الله ،



October Questions Bank

## Question 01

## Choose the correct answer

(1) The coefficient in the expression $6 d+2$ is $\qquad$
(a) $\underline{6}$
(b) $d$
(C) 6 d
(d) 2
2) The smallest number from the following is
(a) 0.11
(b) $\underline{0.101}$
(c) 0.20
(d) 0.3
(3) The greatest negative integer is
(a) 1
(b) -1
(c) 0
(d) $-1000,000$
(4) $\frac{3}{7}+\frac{2}{5}=$ $\qquad$
(a) $\frac{5}{12}$
(b) $\frac{29}{35}$
(c) $\frac{1}{2}$
(a) 1
(5) $3(5+4)=(3 \times \ldots \ldots)+(\ldots \ldots \times 4)$
(a) 5,3
(b) 5,4
(c) 3,5
(a) 3,4
(6) The opposite of the number 15 is $\qquad$
(a) 15
(b) $|15|$
(c) -15
(d) $|-15|$
(7) The additive inverse of $I-4 \mid$ is $\qquad$
(a) 4
(b) 141
(c) -4
(d) |-4|
(9) Which of the following are relatively prime numbers?
(a) 2,6
(b) 3,21
(C) 9,12
(d) 8,15
(10) The LCM of 5 and 15 is $\qquad$
(a) 5
(b) 15
(c) 1
(d) 3
(11) The GCF of 5 and 15 is $\qquad$
(a) $\underline{5}$
(b) 15
(c) 1
(d) 3
(12) The common factor of all number is $\qquad$
(a) 0
(b) 1
(c) 2
(a) 100
(13) The GCF of any two different prime numbers is $\qquad$
(a) 0
(b) 1
(c) itself
(d) The smallest
(14) The LCM of any two different prime numbers is $\qquad$
(a) 1
(b) The product of
(c) The smallest
(d) The greatest
(15) The dividend in $321 \div 12=26 \mathrm{Rg}$ is $\qquad$
(a) 321
(b) 12
(c) 26
(d) 9
(16) The divisor in $321 \div 12=26 \mathrm{R9}$ is $\qquad$
(a) 321
(b) 12
(c) 26
(d) 9
(17) Which of the following is nearest to zero ?
(a) 5
(b) -1
(c) - 3
(d) 3
(18) The number -3.5 in the form $\frac{a}{b}$ is... $\qquad$
(a) $\frac{7}{2}$
(b) $\frac{3}{5}$
(C) $\frac{35}{10}$
(a) $-\frac{7}{2}$
(19) Which of the following is the greatest number?
(a) -5.3
(b) -3.5
(c) 3.5
(a) 5.3
(20) Which of the following is the smallest number?
(a) -3.2
(D) -2.3
(c) -0.5
(d) -0.01
(21) The best subset for the number -3 is
(a) Counting numbers
(b) $\begin{aligned} & \text { Rational } \\ & \text { numbers }\end{aligned}$
(C) Integers
(d) natural
(22) The best subset for the number 5 is $\qquad$
(a)
Counting
(b) Rational
(c) Integers
(d) $\begin{aligned} & \text { natural } \\ & \text { numbers }\end{aligned}$
(23) The best subset for the number 5.2 is $\qquad$
(a) Counting numbers
(b) $\frac{\text { Rational }}{\text { numbers }}$
(c) Integers
(d) natural
(24) The Set of counting numbers $\qquad$ The set of rational numbers
(a) Belong
(b) not belong
(c) subset
(d) Not subset
(25) The Set of integers $\qquad$ The set of natural numbers
(a) Belong
(b) not belong
(c) subset
(d) Not subset
(26) -5 $\qquad$ The set of rational numbers
(a) Belong
(b) not belong
(c) subset
(d) Not subset
(27) $\frac{8}{2}$ $\qquad$ The set of counting numbers
(a) Belong
(b) not belong
(c) subset
(d) Not subset
(28) $\frac{9}{2}$ $\qquad$ The set of natural numbers
(a) Belong
(b) not belong
(C) subset
(d) Not subset
29) The distance between -6 and its opposite on the number line is $\qquad$
(a) 6
(b) -6
(C) 12
(d) - 12
(3) $|-15|=m$, then $m=$ $\qquad$
(a) -15
(b) 15
(c) Both $\mathrm{a}, \mathrm{b}$
(d) neither
(31) $|x|=5$, then $x=$ $\qquad$
(a) -5
(b) 5
(c) Both $\mathrm{a}, \mathrm{b}$
(d) neither
(32) The number of terms in the expression $6 d+2-5 n \div 4$ is $\qquad$ terms
(a) 1
(b) 2
(C) $\underline{3}$
(d) 4
(33) The like terms in the expression $2 f+2-2 k-8$ is $\qquad$
(a) $2 \mathrm{f}, 2 \mathrm{k}$
(b) 2,8
(C) $2,2 \mathrm{k}$
(d) $2 \mathrm{~F}, 2$
(34) The constant in the expression $6 d+2-5 n$ is $\qquad$
(a) 6
(b) d
(c) $5 n$
(d) 2
(35) $\frac{2}{7}+\frac{1}{7}+\frac{2}{7}+\frac{5}{7}=$ $\qquad$
(a) $\frac{7}{7}$
(b) $\frac{10}{28}$
(C) $\frac{8}{7}$
(d) $1 \frac{3}{7}$
(36) $\frac{3}{6}+\frac{1}{2}=$ $\qquad$
(a) $\frac{1}{2}$
(b) $\frac{3}{6}$
(C) 1
(d) $\frac{4}{8}$
(37) Which of the following is numerical expression?
(a) $3(6 d+5)$
(b) $\underline{8+6}$
(C) $2 n-9$
(d) $4-\mathrm{h}$
(38) Which of the following is algebraic expression?
(a) $4(6+5)$
(b) $4-1+2$
(C) $20 \div 9$
(d) 3 h
(39) The integer which comes just after -1 is $\qquad$
(a) $\underline{0}$
(b) 1
(c) -2
(4) The opposite Venn diagram represent prime factorization of two numbers then GCF of them is $\qquad$

(a) 0
(b) 1
(c) 5
(d) 2
41) All counting numbers are also $\qquad$
(a) natural numbers
(b) Rational numbers
(c) Integers
(d) All of them
(42) $|-10|<$ $\qquad$
(a) |-9.99|
(b) $|-9|$
(c) $1-1001$
(a) $|-5|$
(43) $5(8+\ldots .) \times$.7 is a numerical expression.
(a) d
(b) $4 f$
(c) $\underline{5}$
(d) $19+n$
(44) $5(8+\ldots . .) \times$.7 is a algebraic expression.
(a) 5
(b) 5 m
(C) $18+2$
(d) 13
(45) The verbal expression for $2 x+4$ is $\qquad$
(a) 2 multiplied by $x$ decreased by 4
(b) 2 multiplied by $x$ more than 4
(c) Double a number $x$ increased by 4
(d) Double a number bincreased by 4
(46) The verbal expression for $5(m-3)$ is $\qquad$
(a) 5 multiplied by $m$ decreased by 3
(b) The difference between $m$ and 3 multiplied by 5
(c) The sum of $m$ and 3 multiplied by 5
(d) The product of $m$ and 3 multiplied by 5
47) Adding 5 to third a number $=$ $\qquad$
(a) $5+3 x$
(b) $3 x+5$
(c) $\frac{1}{3} x-5$
(a) $\frac{1}{3} x+5$
(48) The integer that is one less than 0 is $\qquad$
(a) 0
(b) 1
(c) -2

The opposite Venn diagram represent prime factorization
of two numbers then the two numbers are $\qquad$
(a) Prime
(b) Relatively prime
(c) Odd


## Question 02 Complete

(1) The smallest positive integer is $\qquad$ $1.1 . . . . . . . .$.
(2) The smallest non-negative integer is $\qquad$ .0...........
(3) The greatest non-positive integer is $\qquad$ 0. $\qquad$ The opposite Venn diagram represent prime factorization of two numbers then LCM of them $=$ $\qquad$ 30 $\qquad$

(5) The integers between -5 and -1 are $\ldots . . . .-4,-3,-2$.....
(6) The number of integers between -5 and -1 are $\qquad$ .3......
(7) $5(\ldots 3 . \ldots+\ldots . . . \ldots . .)=.[5 \times 4]+(5 \times 3)$
(8) $4+10=2(\ldots \ldots . \ldots+\ldots . . \ldots \ldots)$
(9) $6 \frac{3}{10}-2 \frac{1}{5}=\ldots . . .4 \frac{1}{10} \ldots$
(10) The opposite of the number 50 is $\qquad$ 50
(11) The LCM of 5 and 7 is .35. $\qquad$
(12) The GCF of 5 and 7 is $\qquad$ ..1. $\qquad$
(13) The GCF of 8 and 9 is $\qquad$
(14) The LCM of 8 and 9 is ...... 72 .
(15) $864 \div 24=\ldots . . .36$.......
(16) ..............is a multiple of all numbers.
(17) ...............is a factor of all numbers .
(18) $984 \div 5=\ldots . . . .196 R 4 . \ldots \ldots$.
(19) The quotient in $321 \div 12=26 \mathrm{R9}$ is ...... 26 .....
(20) The number -2.5 in the form $\frac{a}{b}$ is ......... $-\frac{25}{10}$
(21) The opposite of zero is $\qquad$
(22) The smallest positive integer is .............
(23) The opposite Venn diagram represent prime factorization of two numbers then GCF of them $=$ $\qquad$ . 3 $\qquad$

(24) $|-18| \times 0=\ldots . . . . . . . . . .$.
(25) The smallest counting number is $\qquad$ $1 . . . . . . .$.
(26) The smallest natural number is $\qquad$ 0. $\qquad$
(27) The number of terms in the expression $6 \mathrm{~h}+2 \mathrm{~d}-3 \mathrm{x}$ is ...............terms
(28) The opposite of the number I-8.2। is $\qquad$ -8.2. $\qquad$
(29) The opposite of the number $I 8.2 I$ is $\qquad$ 8.2........
(30) The two integers that -5.6 is lying between them are ...-5....and ...-6...
(31) The two integers that $\frac{8}{3}$ is lying between them are ...2....and ...3...
(32) The integer which comes just before -9 is ......-10.......

33 $\qquad$ is one more than -5 .
(34) All integers are also .........rational.............. numbers
(35) Twice the difference between a number and 6 is ... $2(x-6)$ $\qquad$
(36) $5-3 \frac{2}{5}=\ldots 3 \frac{2}{5} \ldots \ldots$.
(37) The constant in the expression $5 f+2 b+3$ is $\qquad$ 3........
(38) The algebraic expression of a number less than 5 is ..........5-x.......
(39) The algebraic expression of a number less 5 is $\qquad$ $x-5 . .$.
(40) The coefficient in the expression $-5 d+3$ is $\qquad$ $-5$. ........
(41) The product of 5 and a number $t$ is $\qquad$ $5 t$. $\qquad$
(42) $|-5|+3=$ $\qquad$ 8.......
(43) The additive inverse of -6 is $\qquad$ .6.........

## Question 03 Compare using ( < , > or = )

(1)
(2)
(3)
(4)
(5)
(6)
(7)
(8)
(9)
(10)
(11)
(12)
(13)
(14)
$-4$
$-100$
|-12|
0
0
2.5
$-\frac{7}{5}$
2.42
5.245
$-50$
-5
32.02
-0.8
$-(-5)$
$<$
$<$
$=$
$>$
$<$
$=$
$=$
$<$
$<$
$=$
$>$
$>$
$<$
$>$

0
12
Any negative integer
Any positive integer

$$
\begin{array}{r}
\frac{5}{2} \\
-1 \frac{2}{5}
\end{array}
$$

2.6

6
-|-50|
The additive inverse of 9
$-100$
0.6
$-|-5|$

## Question 04

## Answer the following

(1) Arrange the following integers ascendingly:
$-9,-12,20,0,-6,1,1-121$
$-12,-9,-6,0,1,1-121,20$
(2) Mohamed has $x$ pounds. he bought a book for 60 pounds. write the algebraic expression of how much money with him now .
X-60
(3) Rozana paid 3,888 pounds to buy 24 candies. Find the price of each box. $3,888 \div 24=162$ pounds
(4) Find three rational numbers between 3.5 and 3.6
$3.51,3.52,3.53$
(5) Find three rational numbers between $\frac{2}{5}$ and $\frac{3}{5}$
$\frac{21}{50}, \frac{22}{50}, \frac{23}{50}$
6) The price of 12 pens is 408 LE , find the price of each pen.
$408 \div 12=34$ LE
(7) Layan ate $n$ sandwiches and Jana ate 5 sandwiches. if the price of one sandwich is 4 pounds . write the algebraic expression to find the price of all sandwiches.
4(n+5)
(8) If Yousef is $x$ years old now . write the algebraic expression of his old after 6 years?
$X+6$
(9) Karem saved e LE. Zyad gave him 40 LE . write the algebraic expression of how much money with him now .
e+40
(10) Maya bought $3 \frac{1}{5} \mathrm{~kg}$ of orange and $4 \frac{3}{10} \mathrm{~kg}$ of apple. what is the total mass of them? $3 \frac{1}{5}+4 \frac{3}{10}=7 \frac{1}{2} \mathrm{~kg}$
(11) Represent $-2 \frac{2}{5}$ on the number line.

(12) A class has 20 boys and 12 girls. Mr Mahmoud Elkholy want to distribute them into equal groups. What is the greatest number of groups ?, How many boys and girls in each group ?,then write the expression which represent that.
The greatest number of groups is 4


The number of boys is 5
The number of girls is 3
The expression is $4(5+3)$
(13) From the opposite Venn diagram:
$a-$ The value of $b=$ $\qquad$ 10.......
$b-$ The value of $\mathrm{c}=$ $\qquad$ 6........
c- The GCF $=. . . . . . . . . . . . .$.
d - The LCM $=\ldots . . . . .30 \ldots$


Represent ( $-5,-3,0,-6,2$ ) at the number line.

(14) Find the LCM and the GCF of 18 and 24 , using venn diagram.

LCM $=3 \times 3 \times 2 \times 2 \times 2=72$
CF $=2 \times 3=6$



## تم بحمد الله ،



## Unit 1

## Lesson 1: Using long division in the real world

## Example 1:

78 volunteers volunteered in the food bank, and the total number of working hours was 9,689 in a year. If each volunteer worked the same number of hours equally. How many hours did each volunteer work in a year?
Sol:
Number of working hours of each
volunteer $=9,689 \div 78=124$ hours
$9689 \div 78 \quad=124 \quad$ R17
$78 \times 1=78$
$78 \times 2=156$
$78 \times 3=234$
$78 \times 4=312$
$78 \times 5=390$
$78 \times 6=468$

124
78

$$
9689 \div 78=124 \quad \text { R17 }
$$

Dividend divisor quotient remainder

## Example 2:

During a charity campaign for the Food Bank, 6,982 food packages were collected and placed in 93 food cartons, where each carton contains the same number of food packages. If the Food Bank wants to put the largest number of food packages in each carton, then how many packages will each carton contain?

| carton contain? |  | 75 |  |
| :---: | :---: | :---: | :---: |
| Sol: |  | 93 | 6982 |
| Number of packages will each carton contain $=6,982 \div 93=75$ packages | $93 \times 1=93$ | 93 | 651 |
|  | $93 \times 2=186$ |  | 472 |
|  | $93 \times 3=279$ |  | 465 |
|  | $93 \times 4=372$ |  | 7 |
|  | $93 \times 5=465$ |  |  |
|  | $93 \times 6=558$ |  |  |
|  | $93 \times 7=651$ |  |  |
|  | $93 \times 8=744$ |  |  |
| $6982 \div 93=75$ R7 |  |  |  |

Dividend divisor quotient remainder


| (7) | $1475 \div 5=\ldots . . . .$. |  | $3776 \div 8=\ldots . . . .$. | (9) | $4935 \div 7=\ldots . . . . .$. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | ........ ....... |  | $\ldots . . . . . . . . . .$. |  | $\cdots$ |


| (10) | $858 \div 78=\ldots \ldots$ | (11) | $4935 \div 47=\ldots \ldots \ldots$ | (12) | $15632 \div 45=\ldots \ldots \ldots$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\ldots$ |  | $\ldots \ldots$. |  | $\ldots$ |

## Exercises: Using division in the world around us

## Choose the correct answer:

1) If $384 \div 16=24$, then the dividend is $\qquad$
a. 384
b. 16
c. 24
d. 0
2) If $40 \div 5=8$, then the remainder is $\qquad$
a. 40
b. 5
c. 8
d. 0
3) If $29 \div 3=9 \mathrm{R} 2$, then the divisor is $\qquad$
a. 29
b. 3
c. 9
d. 2
4) If Mona has 17 oranges and she wants to distribute them equally among 3 of her friends, how many oranges are left?
a. 17
b. 3
c. 5
d. 2
5) Salma made 47 cookies which she will distribute equally in tiny glass jars. If each jar is to contain 6 cookies each, how many cookies will not be placed in a jar?
a. 47
b. 5
c. 6
d. 7
6) Noha baked cookies for her classmates. If she can placed 12 cookies on a tray. How many trays will she need to prepare 276 cookies?
a. 12
b. 21
c. 22
d. 23
7) Ahmed has 120 crayons distribute them among 6 of his friends, how many crayons are left?
a. 0
b. 1
c. 2
d. 3
8) Which is the correct relation represents the following statement: (distribute 16 crayons equally among 4 students)
a. $16 \times 4$
b. $16 \div 4$
c. $16+4$
d. $16-4$

## Exercises: Using division in the world around us

## > Which situations involve division? Identify all that apply:

1) The 78 volunteers at the food bank donated a total of 9,672 hours for the year. Each volunteer worked the same number of hours. How man, hours did each volunteer donate to the food bank?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
2) The food bank can make one food box that can feed one person, 3 meals per day for two weeks. How many total meals can one food box make?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
3) The food bank's top donor donated 1,250 tokens at each of 10 different fundraisers. What is the total donation for all fundraisers?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
4) With the 6,975 cans of food collected during the food bank's largest food drive, 93 meal boxes were created with the same number of cans in each box. In order for the food bank to use the most cans, how many cans would be in each box?
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Lesson 2

## Factorize the number into its prime factor

## Use Venn diagram to find (G.C.F) and (L.C.M):

EX: Find (G.C.F) and (L.C.M) of the numbers 12, 18 by using Venn diagram Sol:


Venn diagram


$$
12=2 \times 2 \times 3
$$

$$
18=2 \times 3 \times 3
$$

-From Venn diagram:
G.C.F $=2 \times 3=6$
(Multiply the common factors inside Venn diagram)

EX: Find (G.C.F) and (L.C.M) of the numbers 4,9 by using Venn diagram

$4=2 \times 2$
$\checkmark$ From Venn diagram:
G.C.F = 1
$9=3 \times 3$
L.C.M $=2 \times 2 \times 3 \times 3=36 \quad$ (Multiply all the numbers inside Venn diagram)

Notes:
4 The common factor of all numbers is 1
4 The greatest common factor (G.C.F) of any two prime numbers is 1

* The G.C.F of the two numbers which haven't any common prime factors is 1
* The common multiple of all numbers is 0
* The (L.C.M) of any two prime numbers is their product.

Factorize each of the following to its prime factors

| a) 4 | b) 6 | c) 10 |
| :--- | :--- | :--- |
| d) 8 | e) 12 | f) 20 |
| g) 16 |  |  |

Find using venn diagram the GCF and LCM of :
Factorize each of the following to its prime factors:
a) 8 and 10
b) 12 and 16
c) 4 and 9
d) 14 and 16

## Complete each of the following

1. The smallest prime number is
2. The smallest odd - prime number is
3. The number that its prime factors are $2,3,5$ is $\qquad$
4. The prime factors of 15 are $\qquad$
5. The GCF of 2 and 4 is $\qquad$
6. The LCM of 10 and 5 is $\qquad$

## > Complete each of the following

1. The prime number between 32 and 40 is $\qquad$
2. All prime number are odd except
3. The number that its prime factors are 5,7 is $\qquad$
4. The prime factors of 35 are $\qquad$
5. The GCF of 12 and 16 is $\qquad$

## $>$ Factorize each of the following to its prime factors

12
$12=$ $\qquad$

$27=$ $\qquad$ $\times$ $\qquad$ $\times$ $\qquad$

$40=\ldots \ldots . \times \ldots \ldots \times \ldots \ldots \times$ $\qquad$

Find using venn diagram the GCF and LCM of

1) 25 and 45
2) 16 and 14

## Learn $\xrightarrow{\longrightarrow}$ Relatively Prime number

They are numbers whose only common factor is 1
So they are prime numbers with respect to each other
Ex. 4 and 9 are composite numbers.

$$
4=2 \times 2 \quad 9=3 \times 3
$$

- The greatest common factor of 4 and 9 is 1
- Therefore 4 is a prime number with respect to 9 .
- 9 is a prime number with respect to 4 .


When there is no prime factors in the common part, then GCF $=1$

No common prime factors So, we draw two distant circles


Note:
The lowest common multiple of the relatively prime numbers is their product.
Ex, the common multiple of 4 and 9 is $4 \times 9=36$
Using the following venn diagram,


1. The two numbers represented in the venn diagram are and
2. The common prime factors of the two numbers are $\qquad$
3. The GCF for the two numbers is $\qquad$
4. The LCM for the two numbers is $\qquad$
5. Are the two numbers relatively prime number? $\qquad$ (Yes Or No ?)

## Lesson 3

## Writing numerical expression by using <br> G.C.F

## Writing numerical expression by using (G.C.F):

EX:
Sarah wanted to make a number of cartons to donate to charitable organizations; if she had 8 boxes of cheese and 12 bags of legumes, what is the largest number of cartons that can be made so that all cartons include the same number of items?

1. Prime factorization 2. Venn diagram

$8=2 \times 2 \times 2$
$12=2 \times 2 \quad \mathrm{x} 3$


$$
4 . \quad x(2+3)
$$

So, Numerical expression: $(4 \times 2)+(4 \times 3)$ the total number of items: $8+12=20$

Means that: We have 4 cartons each carton has 2 boxes of cheese and 3 bags of legumes

## EX:

The students collected 36 boxes of cheese and 48 bags of legumes. What is the largest number of baskets of food that can he nrenared without anv food left?

$$
\begin{aligned}
\mathbf{3 6} & =2 \times 2 \times 3 \times 3 \\
\mathbf{4 8} & =2 \times 2 \times 3 \quad \times 2 \times 2 \\
& =12 \times(3+4) \\
& =(12 \times 3)+(12+4)
\end{aligned}
$$



## - The Distributive Property states that multiplying a number by the sum of

 two addends is the same as multiplying that number by each addend individually and then adding those products.$$
\text { EX. } 7 \times(3+9)=(7 \times 3)+(7 \times 9)
$$

## Complete the following:

A. $5 \times(3+6)=(\ldots \ldots . . . . . . \mathrm{X} \ldots . . . .)+.(\ldots \ldots . . . . . . \mathrm{X} . . . . . . .$.
B. .................. $x(\ldots . . . . . . . . . X . . . . . . .)=.(7 \times 2)+(7 \times 4)$
C. $8 \times(\ldots . . . . . . . . . X$......... $)=(. . . . . . . . . x ~ 9)+(\ldots . . . . . . . . . x 2)$
D. $X(4+6)=(9 x \ldots . . . . .)+.(9 x$ ................)
E. The GCF for 9 and 6 is
F. The GCF of all numbers is $\qquad$

## $\checkmark$ Answer the following:

A. Samo has 12 red crayons and 5 blue crayons, What is the greatest number of groups can Samo divide the crayons into so that all groups contain the same number of both colors?
B. Marwa divided 12 oranges and $B$ candies into bags so that the bogs contained the same number of oranges and the some number of candies writes a numerical expression for this situation.

## Choose the correct answer :-

1. A Student is given 20 packs of cheese and 40 grain bogs to make food boxes. He uses the expression $102+4$ to represent how many boxes he could make with equal amounts of food in each box His friend tells him that there is a way to make more boxes. Which one of these expressions would represent his friend's solution?
A. $20(2+4)$
B. $10(1+21)$
C. $10(1+4)$
D. $20(1+2)$
2. $30+50=$ $\qquad$
A. $10(3+5)$
B. $5(6+5)$
C. $10(30+50]$
D. $2(15+5]$
3. Petra is making packs for a group of her friends going a trip. Each pack should have the same number of sandwiches and same number of juice if she has 24 sandwiches and 30 juices what is the expression greats number of packs that she can make with no any left over?
A. $2(12+15)$
B. $3(8+10)$
C. $4(6+5]$
D. $6(4+5]$
4. $7(2+1)=$ $\qquad$
A. $14+7$
B. $14+1$
c. $14+71$
D. $72+71$
5. $5(2+$ $\qquad$ .) $=10+35$
A. 5
B. 7
c. 2
D. 8
6. $9(1+2)=9+$ $\qquad$
A. 9
B. 81
c. 18
D. 27

## Lesson 4

## Factorize the least multiple

## Adding and subtracting fractions with like denominators:

Ahmed has 3 equal bags of oranges. He wanted to taste the fruit inside each bag to make sure of its quality, the following table represents that:

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| The whole | $\frac{6}{6}$ | $\frac{6}{6}$ | $\frac{6}{6}+\frac{6}{6}=\frac{12}{6}=2$ |
| What Ahmed ate | $\frac{3}{6}$ | $\frac{4}{6}$ | $\frac{3}{6}+\frac{4}{6}=\frac{7}{6}=1 \frac{1}{6}$ |
| Remainder | $\frac{6}{6}-\frac{3}{6}=\frac{3}{6}$ | $\frac{6}{6}-\frac{4}{6}=\frac{2}{6}$ | $\frac{3}{6}+\frac{2}{6}=\frac{5}{6}$ |

Generally: when we add or subtract any two fractions with like denominators, we add or subtract the numerators with the same denominators.
EX: $\frac{1}{5}+\frac{2}{5}=\frac{3}{5}$
$\mathrm{EX:} \frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1 \frac{1}{5}$
EX: $\frac{5}{7}-\frac{3}{7}=\frac{2}{7}$
EX: $2 \frac{1}{6}-\frac{3}{6}=1 \frac{4}{6}$

## Adding and subtracting fractions with unlike denominators:

Ahmed wanted to make a meal of oranges and pears by use half bag of oranges and $\frac{1}{4} \quad$ of bag of pears, the following table represents that:

|  |  |  | The L.C.M of denominators | The sum |
| :---: | :---: | :---: | :---: | :---: |
| The whole | $\frac{6}{6}$ | $\frac{4}{4}$ |  | $\frac{12}{12}+\frac{12}{12}=2$ |
| What Ahmed ate | $\frac{3}{6}$ | $\frac{1}{4}$ | $\begin{aligned} & 6=2 \times 3 \\ & 4=2 \times 2 \end{aligned}$ | $\frac{6}{12}+\frac{3}{12}=\frac{9}{12}$ |
| remainder | $\frac{6}{6}-\frac{3}{6}=\frac{3}{6}$ | $\frac{4}{4}-\frac{1}{4}=\frac{3}{4}$ | L.C.M $=2 \times 3 \times 2=12$ | $\begin{gathered} \frac{6}{12}+\frac{9}{12}=\frac{15}{12}=1 \\ \frac{3}{12} \end{gathered}$ |

## A. Find the result:

## 1- Add :-

$\frac{3}{5}+\frac{1}{5}=\ldots \ldots . . . . . . .$.
$\frac{2}{7}+\frac{6}{7}=$
$5 \frac{1}{4}+\frac{2}{4}=$
$\frac{1}{4}+\frac{2}{4}=\ldots \ldots \ldots . . . . .$.
$\frac{1}{6}+\frac{5}{6}=$
$2 \frac{3}{8}+1 \frac{7}{8}=$
$\frac{3}{11}+\frac{7}{11}=$
$\frac{2}{3}+\frac{2}{3}=$
$1+\frac{2}{9}=$
$\frac{1}{3}+\frac{1}{4}=$ $\qquad$ $\frac{1}{5}+\frac{1}{3}=\ldots \ldots \ldots \ldots . . . .$.
$2 \frac{1}{2}+\frac{2}{4}=$
$\frac{1}{4}+\frac{2}{12}=$
$\frac{3}{3}+\frac{7}{3}=$ $\qquad$
$\frac{1}{5}+\frac{5}{5}=\ldots \ldots \ldots \ldots \ldots$
$2 \frac{3}{4}+3 \frac{7}{3}=$
$\frac{7}{10}+\frac{5}{6}=$
$1+\frac{2}{7}=$

## 2- Subtract:-



## 3- find the result in the simplest form

$\frac{1}{5}+\frac{1}{8}=$
$\frac{3}{7}+\frac{2}{5}=$
$2 \frac{1}{3}+1 \frac{1}{2}=$
$1 \frac{3}{5}+\frac{1}{3}=$ $\qquad$
$\frac{1}{4}+\frac{1}{12}=$
$\frac{1}{4}+\frac{2}{3}=$ $\qquad$
$\qquad$
$\frac{7}{10}+\frac{5}{6}=$
$\frac{3}{4}+\frac{4}{5}=$
$3 \frac{2}{8}+2 \frac{1}{6}=$
$1 \frac{1}{12}-\frac{5}{9}=$
$10 \frac{1}{2}-5 \frac{1}{3}=$
........
$9 \frac{3}{7}-4 \frac{1}{6}=\ldots \ldots \ldots$.
$8 \frac{11}{12}-7 \frac{3}{4}=$
$10 \frac{1}{4}-3 \frac{1}{12}=$
$9 \frac{1}{6}-4 \frac{4}{9}=$
$4 \frac{1}{2}-\frac{1}{4}=$
...........
$5 \frac{5}{8}-1 \frac{1}{3}=\ldots \ldots \ldots$
A. Choose the correct answer :-
4) $\frac{5}{6}-\frac{3}{5}=$
a) $\frac{7}{30}$
b) $\frac{8}{30}$
c) $\frac{1}{3}$
d) $\frac{9}{30}$
5) The equivalent fraction of $\frac{12}{15}$ is $\qquad$
a. $\frac{2}{5}$
B. $\frac{3}{4}$
c) $\frac{4}{5}$
d) $\frac{1}{3}$
6) $2 \frac{3}{4}+1 \frac{2}{3}=$
a) $3 \frac{5}{12}$
b) $4 \frac{5}{12}$
c) $\frac{17}{12}$
d) 4

## 4. Answer the following:

1) Salma bought $3 \frac{1}{2} \mathrm{~kg}$ of tomato, and $1 \frac{1}{4} \mathrm{~kg}$ of onion. How much vegetable did she buy?
2) Basma walked $2 \frac{3}{4} \mathrm{~km}$ on Sunday, and $1 \frac{1}{3} \mathrm{~km}$ on Monday. What distance did she walk in all?
3) Ali bought a bottle of juice contains $1 \frac{3}{4}$ liters of orange juice. He drank $\frac{2}{5}$ liter of juice. How much of juice is left in the bottle?

## Revision

## 1. Answer the following:

Find G.C.F and L.C.M of 12 and 18 by two methods.
$\qquad$
$\qquad$
$\qquad$
A factory produces 875 pieces of cloth weekly. How many pieces did the factory produce daily?
$\qquad$
$\qquad$
$\qquad$
2. Complete the following.
a) $6(7+9)=42+$
b) $5 \times 3+5 \times 7=5(\ldots \ldots . . . . . . . . . .+\ldots . . . . . . . . .$.
c) $26,900 \div 43=$
d) The common multiple of all numbers is

## 3. Choose the correct answer.

(1) $20+25=$ $\qquad$
a. $2(0+5)$
b. $5(5+2)$
c. $5(4+5)$
d. $20(0+5)$
(2) $13,510 \div 23=587 \mathrm{R}$
a. 9
b. 8
c. 7
d. 6
(3) Youssef saves 105 LE. Weekly. How much did he save daily?
a. 15
b. 98
c. 735
d. 112
(4) From the opposite venn diagram, the expression is
a. $10(6+35)$
b. $3(10+7)$
c. $7(10+3)$
d. $10(3+7)$


## 4. Complete the following.

A. The L.C.M of 5 and 7 is $\qquad$
B. $8,529 \div 25=341 \mathrm{R}$ $\qquad$
C. The common factor of all numbers is $\qquad$
D. In the opposite venn diagram the G.C.F is $\qquad$
E. The divisor in the equation $16,692 \div 52=321$ is $\qquad$

## 5. Choose the correct answer

(1) $\qquad$ is a multiple of any number
a. 3
b. 2
c. 1
d. 0
(2) In the equation $2,150 \div 25=86$, the remainder is $\qquad$
a. 0
b. 25
c. 86
d. 2,150
(3) Which of the following are relatively prime numbers?
a. 4 and 8
b. $\quad 12$ and 18
c. 2 and 12
d. 9 and 4
(4) In the opposite venn diagram the L.C.M is $\qquad$

a. 0
b. 1
c. 15
d. 8
(5) $2,574 \div 7=$
a. $\quad 376 \mathrm{R} 5$
b. 367 R 5
c. 367
d. 376

## Lesson 1: Counting numbers, natural number \& Integer

## numbers

- Counting numbers: $1,2,3,4, \ldots$
- Natural numbers: $0,1,2,3,4$. $\qquad$
- Integer numbers : $\qquad$ $-4,-3,-2,-1,0,1,2,3,4$,

Negative integer and zero and positive integers
Or negative integers and zero and counting numbers
Or negative integers and natural numbers

Negative integers The origin positive integers

-The negative integers are to the left of zero .

- the point that represents 0 is called ( the origin )
- the positive integers are to the right of zero .
- Representing integers on number line :

1-horizantal number line : 2-vertical number line :


## Notes:

- Integer numbers are infinite
- The smallest positive integer is 1.
- The greatest negative integer is -1 .
- The number zero neither negative nor positive number.
- Zero is smaller than any positive integer number.
- Zero is greater than any negative integer number.

1) chooce the correct answer :
a. which is an integer ?

$$
\left[-0.2 \text { or } \frac{1}{2} \text { or }-10 \text { or } 3 \frac{1}{2}\right. \text { ] }
$$

b. the smallest counting number is $\qquad$

$$
\text { [ } 0 \text { or } 1 \text { or }-1 \text { or -10 ] }
$$

2 ) write an integer to represent each the following situation.
a. A temperature of 3 degrees below zero .
[........]
b. A bank deposit of 100 L.E.
c. A loss of 5 L.E.
3) Represent each of the following numbers on the horizontal number line.
a. $4,-2,0,3,-5$
$\qquad$
b. $-2,-1,0,1,2$
4) Represent each of the following numbers on the vertical number line .
a. $10,-2,-3,5,3$
b. $-4,-3,-2,-1,0,1$

## Life situations of integers:

Ex : write an integer to represent each situation :

1) The orange juice freezes at $6 c^{\circ}$ below zero
2) Ahmed walked 5 steps forward
3) A building is 12 m high
4) Amir diving 7m below sea level

Find the distance between two integer numbers on the number line :
Ex : Find the distance between each two integer numbers on the number line:


## Note:

. the distance between any two numbers is always positive .
. we can write positive numbers by two ways :
Ex: 2 or +2

## 1) Which of the following is an integers?

a. -31
b.7.3
c. $-\frac{3}{7}$
d. 0

## 2) complete:

a) the smallest natural number is $\qquad$ And the smallest counting number is $\qquad$ ...
b) the integers between - 3 and 2 are $\qquad$
c) the number $\qquad$ is neither positive nor negative .
d) the integer which just next -4 is $\qquad$
e) the integer which just before -10 is $\qquad$
f) the number of integers between -4 and 3 is $\qquad$
g) the smallest non negative integer is $\qquad$ and greatest non- positive integers is $\qquad$
h) the smallest positive integer number is $\qquad$ and the greatest negative integer number is $\qquad$
3) write an integer to represent each situation :
a) A temperature is $12^{\circ} \mathrm{C}$ below zero . $\qquad$
b) she is diving 10 m below sea level . $\qquad$
c) Ahmed withdraws 6000pounds from his bank account . $\qquad$
d) the tree is 4 m high. $\qquad$
e) 3 steps forward . $\qquad$
f) Abank deposit of 750 L.E. $\qquad$
g) A loss of 20L.E. $\qquad$
h) A gain of 7 kilograms. $\qquad$
i) A profit of 100 L.E. $\qquad$
j) A decrease of 200 L.E. $\qquad$

## Lesson 2: the opposite number ( additive

 inverse )On the number line any two numbers that are at the same distance from zero and on two opposite position of it are called opposites or additive inverse

For example:

opposites or additive inverses

Each of the integers 5 and -5 has the same distance away from 0 therefore 5 and -5 are opposites .

Note that :
a. The opposite of 5 is -5
. The opposite of -5 is 5
. The opposite of the opposite of 5 is $-[-5]$ which is 5
b. The opposits of 0 is 0

## 4-Write the opposite of each integers :

a) -5
b) 6 $\qquad$ c) 0 $\qquad$
d) -16
e) 1000
F) $-(-4)$

5-write each statement ,filling in each blank with inequality symbol,<or>;
a) -7 -3
b) 8 0
c) 3 .4
d) 2 $\qquad$ -9
e) -6 . 0
f) 2 $-2$
6) Which are true ? select all the true statements.
a) A number and its additive inverse are the same distance away from zero on a number line but on opposite sides .
b) zero is its own additive inverse .
c) To show 5 and its additive inverse on anumber line count 5 units and plot the point 5 units to the right of 0 . then, plot the point 5 units to the left of 0 .
d) The additive inverse of any number is zero .
7) Arrange the following integers from least to greatest :
a) $-6,0,-4,4,-7,3$
$\qquad$
b) $7,-7,-3,-5,11,-11$.
8) Arrange the following integers in an ascending order:
$4,-5,1,-3,0,6,-7$ and -1
9 ) the distance between the number 2 and its opposite on the number line equals $\qquad$ units .

10 ) the distance between the opposite of 4 and 0 on the number line equals units .

## Lesson 3 : Analyyzing Rational number by using models :

What is rational number ?
A rational number is any number that can be written in form $\frac{a}{b}$, where a and b are integers and $b \neq 0$

Example : All $5,-3,0,3 \frac{1}{8}, 0.28$, can be written in the form $\frac{a}{b}$ as :
$\frac{5}{1}, \frac{-3}{1}, \frac{0}{1}, \frac{25}{8}, \frac{28}{100}$

Write the following numbers in the opposite venn diagram
$\frac{3}{4}, 782,0,-10,-0.5,15,-6,7 \frac{12}{13}$
Write the given rational number in fraction form $\frac{a}{b}$ :
a. -3
b. -0.31
c. $3 \frac{3}{9}$
d.2.5

Note
.Any collection of numbers is called a set as "set as rational numbers "
.Each rational number is called an element of the set of rational numbers.

Match the numbers to the best subset:
Rational numbers integer counting number natural number
a.0.785 $\qquad$ b. $\frac{2}{8}$ $\qquad$ c.-439
d.-2 .................
e. 0 $\qquad$ F.4.6 $\qquad$
g. 5 $\qquad$ h. 17266
i. -35 $\qquad$


## Belonging of an element to aset ;

We can say that -3 belongs to set of integers but -3 does not belong to set of natural number .

## Example:

$\frac{1}{2}$ belongs to set of rational numbers
0 does not belong to set of counting numbers .

## Example:

Write 'belong' or 'does not belong '.
a. . $\frac{3}{7}$ $\qquad$ to set of integers.
b. 0 $\qquad$ to set of natural numbers.
c.-4 $\qquad$ to set of counting numbers.
d. 0 $\qquad$ .to set of rational numbers .

## Inclusion and subsets :



## Write 'a subset ' or 'not subset '

a. set of integers is $\qquad$ of set of counting numbers.
b. set of natural numbers is $\qquad$ of set of integers .
c.set of counting numbers is $\qquad$ .of set of rational numbers .
d. set of rational numbers is $\qquad$ of set of natural numbers .

## Representung the rational number on the number line :

.Each rational number can be represented by a unique point on the number line.
. the positive rational numbers are represented on the number line by points lying on the right side of the point which represents the number zero and and the negative rational numbers are represented by points lying on the left side of the point which represents the number zero and the number zero neither positive nor negative.

Negative rational numbers (-) positive rational numbers (+)


## Example:

Represent the rational number $\frac{3}{4}$ on the number line.


Complete :
a. the smallest non negative rational number is $\qquad$
b. -4 $\qquad$ (belongs to -does not belong to )set of counting numbers .
c. set of integers $\qquad$ .(subset -not subset of ) set of rational numbers .
d. Each number in the set of integer is called $\qquad$

## lesson 4: comparing and ordering rational numbers.

If the point which represent the number x lies on the left of the point which represent the number $y$ on the number line as shown in the opposite
figure , then: $x<y$ or $y>x$

Example :- Represent the following rational numbers on the number line , then arrange them ascendingly $: \frac{7}{5}$, zero $, \frac{9}{5}, 2,-1$
-Represent the following rational numbers on the number line, then arrange them ascendingly : 2 , zero $, \frac{5}{2},-1, \frac{7}{2}$

Compare the two numbers in each of the following using suitable sign (< . >,=).
a. $\frac{5}{12}, \frac{7}{12}$
b. $\frac{6}{12}, \frac{2}{3}$
c. $\frac{11}{12}, \frac{11}{15}$
d. $\frac{2}{3}, \frac{4}{5}$
e. $-4,-4.1$
f.3.7, 3.15
g. $\frac{11}{2}, 3.2$
h. $\frac{1}{4},-\frac{5}{6}$

Compare each the following using suitable sign (< .>,=).
a. $\frac{3}{6}$ $\qquad$ $\frac{2}{3}$
b. $-\frac{7}{5}$
.......... $\frac{4}{5}$
C. $\frac{1}{5}$ $\qquad$ $\frac{1}{6}$
d. $\frac{4}{10}$
$\frac{14}{35}$
e. $\frac{10}{15}$
....... $\frac{2}{3}$
f. $-\frac{3}{4}$ $\qquad$ $-\frac{2}{4}$

## Write the correct sign (<,>,=).

a. $-\frac{1}{2}$
zero
b. 0.8 1
c. -1.6 ........... - $\frac{8}{5}$
d. 3.7
3.65
e. $\frac{3}{2} \ldots \ldots . . \frac{1}{2}$
f. $\frac{1}{4} \ldots \ldots \ldots . . \frac{1}{6}$
g. $-4 \frac{1}{2}$
-5
h. $-\frac{5}{7} \ldots . . . .-\frac{3}{2}$
i. 0.5 .......... $\frac{2}{8}$
j. $3 \frac{1}{2} .$.
3.5
k. $-\frac{3}{4} \ldots \ldots . . . \frac{1}{4}$
I. $1 \frac{2}{3} \ldots . . . . . . .1 \frac{4}{5}$

Order rational numbers order the given set numbers from least to greatest, using a table like the one shown.

| 2.1 | 1.4 | $-3 \frac{1}{4}$ | $-1 \frac{7}{8}$ | $-2 \frac{1}{2}$ |
| :---: | :---: | :---: | :---: | :---: |


| Least |  |  | greatest |  |
| :--- | :--- | :--- | :--- | :---: |
| $\ldots \ldots . . . . . . . . . . . . . . . . . . . . . . ~$ | $\ldots . . . . . . . . . . . . . . . . . . . . . . . . ~$ | $\ldots$ |  |  |

.order the given set of numbers from greatest to least , using table like the one shown.

| 3.4 | $-2 \frac{1}{2}$ | 0 | $-1 \frac{3}{7}$ | $3 \frac{1}{4}$ |
| :--- | :--- | :--- | :--- | :--- |


| greatest |  |  | Least |  |
| :--- | :--- | :--- | :--- | :---: |
| $\ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . . . . . . . ~$ | $\ldots \ldots . . . . . . . . . . . . . . . . . . . . . ~$ | $\ldots$ |  |  |

Choose the correct answer.

1) $\frac{3}{5}$............. $\frac{2}{7}$
a.> b.< c. $=$
2) 0.7 $\qquad$ 0.65
a.>
b.<
c. $=$
3) $-\frac{1}{4}$ .$-\frac{2}{9}$
a.>
b.<
c. $=$
4) $\frac{2}{8}$ 0.5
a.>
b.<
c. $=$
5) $\qquad$ is lying between 3.14 and 3.2
a.3.15
b.3.21
c.3.22
d.3.20
6) $2.8>$
a.3.1
b. 4
c.-5.8
d.7.9
7) the smallest number from the following is
a.0.11
b.0.3
c.0.101
d. $\frac{1}{2}$
8) the greatest number from the following is $\qquad$
a. $\frac{1}{2}$
b. $\frac{1}{3}$
c. $\frac{1}{4}$
d. $\frac{1}{12}$

## Lesson 5\&6 :- Exploring Absolute value

## - Comparing Absolute values

- what is the absolute value?

The absolute value of a rational number is its distance from zero since distance is positive, or zero .
$|5|=5$ and $|-5|=5$
Note $-|-5|=-5$

## Find the value of each of the following :

a. $|-4|$
b. $-|4|$
c. |0|
d. $-\left|-\frac{3}{7}\right|$
e. $|-3|+|5|$
f. $|-6|-|6|$

## compare using ( $\langle\rangle,,=$ )

a. $|-7|$ $\qquad$ $|-11|$
b. -5 $\qquad$ $|-2|$
c. $|-2.4|$........... $|-2.40|$
d. $\left|-3 \frac{1}{7}\right| \ldots \ldots . . . . .\left|-3 \frac{1}{5}\right|$
e. $|-2|$ $|-7|$
f. $|-2.8|$ $-2.8$

## Find the value of each of the following:

a. $|-7|$
b. $|-3|+|5|$
c. $|-5|+7$
d. $|-5|-5$
e. $|-30| \div|-5|$ $\qquad$
f. $|-2|+|-13|$ $\qquad$
g. | $-12|-|12|$ $\qquad$
h. $|-3| \times|-5|$ $\qquad$
I. $|0| \times|-3|$ $\qquad$
」. $|-100|-|-50|$ $\qquad$
k. $8 \times|-11|$
L. |-10|-|2|

## Compare using [ $<,>$ or $=$ ].

a. $|-3|$....... $|-1|$
b. $|-4| . . . . . . . .|-3|$
c. -1.4 ......... $|-1.4|$
d. $\left|9 \frac{3}{5}\right| \ldots . . . . .\left|-9 \frac{3}{5}\right|$
e. $5 \frac{5}{6}$ $\qquad$ $\left|-\frac{35}{6}\right|$
f. $|-2.71|$ 2.7

## Find the value of $x$ :

a. $|x|=5$
e. $|x|=0$
b. $|-4|=x$
f. $|-101|=x$
c. $|x|=12$
g. $|-12|=x$
$d|3|=x$
h. $|x|=20$

## choose the term that correctly completes the sentences :

$$
|2|=|-2|
$$

absolute value distance direction equal negative positive
a. The ......... symbol in the expression $|2|$, signifies the distance from 0 to 2 .
b. The $\qquad$ symbol in the expression $|-2|$, signifies the distance from 0 to- 2 .
c. The $\qquad$ Sign shows the relationship between each side and that their values are the same $\qquad$ from 0 .

## choose the correct answer

1) $|-7|>$ $\qquad$
a. $|-6|$
b. $|-7|$
c. $|-8|$
d. $|-9|$
2) $|-1.34|<$
a. 1.4
b. -1.29
c. -1.4
d. 1.19
3) $\left|-3 \frac{1}{4}\right|$
a. >
b. <
c. $=$
4) the absolute values of opposites are
a. equal
b. different
c. negative
5) A negative number with an absolute value greater than 10
a. 10
b. 11
c. -9
d. -12
6) The distance between 10 and $|-10|$ on the number line is $\qquad$ unit[s]
a. 10
b.-10
c. 0
d. 20
7) The absolute value of the opposite of $-2 \frac{1}{5}$ is $\qquad$
a. $4 \frac{2}{5}$
b. 0
C. $-2 \frac{1}{5}$
d. $2 \frac{1}{5}$
8) $|2| \times|-2|=$
a. 0
b. 4
C. -4
d. -1
9) $|x|$ -1
a.>
b. <
c. $=$
10) $\left|-2 \frac{1}{4}\right| \div\left|\frac{1}{2}\right|=$
a. $4 \frac{1}{4}$
b. $4 \frac{1}{2}$
C. $\frac{9}{8}$
d. 4

Write the opposite (additive inverse) number of each of the following:
a. $\frac{3}{7}$.
b. $-\frac{2}{5}$
c. 0
d. $\frac{1}{2}$
e. $-\frac{3}{2}$
f. $2 \frac{1}{3}$

## Represent each of the following rational number on the number line :

a. $\frac{1}{3}$
b. $-\frac{1}{2}$
C. $3 \frac{1}{4}$
d. -2.5

## Revision on unit 2

## Choose the correct answer :

1) the rational number between -3.1 and -3.17 is $\qquad$
a.-3.2
b. 3.15
c. -3.14
d. -3.18
2) which of the following is greatest number ?
a. -10
b. $|-10|$
c. -11
d. 9
$3)$ the additive inverse of $|-2|$ is $\qquad$
a. 2
b. -2
C. $-\frac{9}{3}$
d. $-\frac{12}{4}$
3) $|-3|+|-2|=$ $\qquad$
a. 5
b.-5
c. 6
d. 0
4) All integers are also $\qquad$ numbers.
a. counting
b. natural
c. rational
5) -3 $\qquad$ set of natural numbers .
a. belongs
b. does not belong
c. is a subset of
d. is not a subset
6) the set of counting number numbers $\qquad$ te set of rational numbers
a.belongs
b. does not belong
c. is a subset of
d.is not subset of
7) $|-8|>$ $\qquad$
a. |-9|
b. $|-7|$
c. 9
d. 8
8) the best subset for of the number -2 is $\qquad$
a. acounting number .
b. an integer
c. a natural number .
d. a rational number

10 ) the smallest natural number is $\qquad$
a. -1000
b. -1
c. 0
d. 1
11) the integer which comes just before -3 is $\qquad$
11) the integer which comes just before 3 is
a.-2
b. -4
c. -1
d. 0
12) The opposite number of $-\frac{3}{8}$ is $\qquad$
a. $-\frac{3}{8}$
b. $\frac{8}{3}$
C. $-\frac{8}{3}$
d. $\left|-\frac{3}{8}\right|$
13) $-\frac{3}{4}$ $-\frac{1}{2}$
a. >
b. <
C. $=$
14) which of the following is an integer ?
a. 3.75
b. $-\frac{3}{7}$
C. $\frac{7}{7}$
d. $2 \frac{1}{2}$

## complete the following .

a) the smallest positive integer number is $\qquad$
b) absolute values of the opposite are $\qquad$
c) $|-3| x|-4|=$ $\qquad$
d) the number of integers between -5 and 2 $\qquad$
e) $-3 \frac{1}{4}$ in the form $\frac{a}{b}$ is $\qquad$
f) the integers between -4 and 1 are $\qquad$
g) A negative number with an absolute value greater than 8 is $\qquad$
i) from the opposite number line the integer for point $A$ is $\qquad$ and its opposite is $\qquad$

$-1 \quad 0$
3

## Answer the following questions .

1) $-8,|-7|, 2,0,-5$

The order is : $\qquad$
2) find a rational number lying between $\frac{3}{5}$ and $\frac{2}{3}$
$\qquad$
3) write the following numbers in the opposite venn diagram.
$34,2 \frac{1}{4}, 0.225,-10,0,-\frac{7}{8}$

4) Represent $-3 \frac{1}{4}$ on the number line .

## Unit 3

## Algebraic expressions

## Lesson one : Creating mathematical expressions

Mathematical expressions are sorted into:

Numeric expressions
Are statements that contain only numbers separated by one or more operations from (+, $-\times, \div$ ) Examples : $3+5.8$

Algebraic expressions Are statement contain numbers and symbols (variables) separated by one or more operations from (,,$+- \times, \div$ ) Examples : $3 \mathrm{X}+4 \mathrm{Y}$

1) Classify the following mathematical expressions.

| Mathematical expression | Algebraic expression | Numeric expression |
| :---: | :---: | :---: |
| 9 |  |  |
| $2+7.8$ |  |  |
| $3(6)+2$ |  |  |
| $7(1.4+3.2)$ |  |  |
| $48-1$ |  |  |
| $2 \mathrm{~m}-2$ |  |  |
| $3 \mathrm{P}+4 \mathrm{q}$ |  |  |
| $5 \mathrm{X}+3 \mathrm{X}-1$ |  |  |
| $\mathrm{X}-36$ |  |  |

## 2) Write numeric or algebraic expression for each of the

 following :a) $8 \mathrm{~K}+7-1$ (.........................)
b) 89 $\qquad$
c) $\frac{3}{4} z$
(.........................)
d) $7-5+3$
(..........................)
e) $26-6+8$ (.........................)

g) $3 x-2 x+3 \quad$ ( .......................)
h) $6(5-3)+2$ (.........................)
H.W

| Mathematical expression | Algebraic expression | Numeric expression |
| :---: | :---: | :---: |
| $12+5.8$ |  |  |
| $3 K+4$ |  |  |
| $8(1.4-n)$ |  |  |
| $2(3)+5$ |  |  |
| $3 p-4 q+1$ |  |  |
| $K+3 m-n$ |  |  |

## Lesson two : Analyzing mathematical expressions

## Contents of mathematical expression:

Term: Is a number, a variable or product of both $2,5 \mathrm{X}, 8,3 Z, \frac{3}{4} \mathrm{~b}, \frac{5}{7}$ Constant: Is the term that doesn't contain variable $2, \frac{2}{5}$

Coefficient: Is the number that is multiplied by the variable like 5 in (5X) Like terms All numerical terms are like 2, $8, \frac{3}{7}$

Algebraic term of the same variables are like 3X, 5X,9X

1. Complete the following table :

| Expression | Number of terms | Like terms |
| :---: | :---: | :---: |
| 5 |  |  |
| $8+2$ |  |  |
| $X+12$ |  |  |
| $4 n+2 n+2$ |  |  |
| $6+3 X+3$ |  |  |
| $M+3+2 n+2$ |  |  |
| $16 X+2 X$ |  |  |
| $7 X+3 z+9$ |  |  |

$\sqrt{16}$ Ever
2. Complete the following table

| Expression | Constant | coefficients |
| :---: | :---: | :---: |
| $2 a+7+4 a$ |  |  |
| $17+5+x$ |  |  |
| $4 x+7 x+9$ |  |  |
| $22+\frac{1}{3} z+2 y$ |  |  |
| $0.2 q+0.6 r+2 y$ |  |  |
| $4 a$ |  |  |
| 3 |  |  |

3. Complete the following table

| Expression | Number of <br> terms | Like terms | constants | coefficients |
| :---: | :---: | :---: | :---: | :---: |
| $7 a-4 b+7$ |  |  |  |  |
| $X+X+4 X$ |  |  |  |  |
| $6-Z+5$ |  |  |  |  |
| 18 |  |  |  |  |
| $\frac{\mathbf{1}}{2} n-2 n+K$ |  |  |  |  |
| $0.4 a+0.1 a+2 a$ |  |  |  |  |
| $R$ |  |  |  |  |


| Expression | Number of <br> terms | Like terms | Constants | Coefficients |
| :---: | :---: | :---: | :---: | :---: |
| 25 n |  |  |  |  |
| $4 \mathrm{n}-5+6 \mathrm{n}$ |  |  |  |  |
| $8 \mathrm{z}+\mathrm{g}+\mathrm{z}$ |  |  |  |  |
| 1000 |  |  |  |  |
| $2 \mathrm{~m}+5$ |  |  |  |  |
| $\mathrm{~K}+3+4 \mathrm{k}$ |  |  |  |  |
| 7 |  |  |  |  |
| $\frac{4}{5} \mathrm{~b}+5 \mathrm{q}-7 \mathrm{~h}$ |  |  |  |  |
| 8 a |  |  |  |  |
| $3+5$ |  |  |  |  |
| $2 \times 4$ |  |  |  |  |



## Lesson three : Writing Algebric expression

Algebraic expression and written (verbal) expression

| Addition | Subtraction | Multiplication | Division |
| :---: | :---: | :---: | :---: |
| - Add <br> - Sum <br> - Increased by <br> - More than <br> - Exceeds <br> - Total <br> - Plus <br> - In all <br> - Gain <br> - deposit | - subtract <br> - difference <br> - decreased by <br> - fewer <br> - diminished by <br> - minus <br> - Take away <br> - Withdraw <br> - Reduced by <br> - Less than <br> - Magnitude of increase | - Multiplied by <br> - Times <br> - Product of <br> - Double <br> - Triple <br> - twice | - Divide <br> - quotient <br> - per <br> - divided equally <br> - split into <br> - fraction <br> - ratio of <br> - half <br> - third |

A. Write each of the mathematical expression using Verbal form (words):

1) $X+2$
2) $\frac{12}{X}$
3) $X-5$
4) $12 x$
5) $X X$
6) $2 m+7$
7) $3(m+4)$
8) $2(X+5)$
9) $8-3 n$
10) $\frac{1}{2} b+15$
B. Select the algebraic expression that represent the verbal expression
Twelve less than three groups of y $3 Y-12$
11) $12-3 Y$
12) $3 Y-12$
13) $Y-3$ (12)
14) $12(3)-Y$
C. Record all verbal expressions that represent the expression $5+2 \mathrm{X}$
15) The sum of 2 and 5 multiplied by $X$
16) The product of 7 and $X$
17) The sum of 5 and the quantity 2 times $X$
18) The product of $2 X$ and 5
19) The sum 2 times $X$ and 5
D. Record which expressions can be represented by an algebraic expression that contains addition.
20) Take 14 away from a number
21) Ammar has 7 more tokens than Tamer
22) A number increased by 3.5
23) Baher put 12 more stickers in the sticker book
24) A student shared his oranges equally with his 2 friends

## E. Write an algebraic expression for each of the following verbal

 expression.1) Add 6 to the number $Y$
2) Subtract 3 from the number $X$
3) Multiply 5 by the number $Z$
4) Divide the number $n$ by 3
5) A number less than ten
6) A number less ten
7) A number less than six
8) A number less six
9) Nine more than a number $X$ three times a number $S$
10) Product of a number $X$ and 5.4
11) Quotient of a number $v$ by 6
12) Three fifth a number m
13) Nine increased by a number five
14) A number $Y$ decreased by 5
15) Add 3 to double of the number $X$
16) Subtract 5 from double of the number $y$
17) Twice the sum of a number and 3
18) The sum of four times a number and seven
19) Add 6 to one third of a number
20) 8 decreased by three times a number

## F. Choose the correct answer

1) If we subtract 5 from the number $X$ we get
a) $5 x$
b) $5-x$
c) $X-5$
d) $X+5$
2) Suzan saved L.E $X$ and her father gave her L.E 10 she will have
a) $X-10$
b) $X+10$
c) $10 x$
d) $10-x$
3) Subtracting 3 from double a number $=$
a) $\mathrm{N}-3$
b) $2 n-3$
c) $3 n+2$
d) $5 n$
4) Three times a number less two is
a) $3 x+2$
b) $3 x-2$
c) $2 \times 3 x$
d) $2+3 x$
5) If three times a number is added to 12 , then the algebraic expression that express this is
a) $q+12$
b) $q-12$
c) $3 q+12$
d) $3 q-12$
6) Twice the sum of a number and five is
a) $2 Y+5$
b) $2 Y-5$
c) $2(Y+5)$
d) $2(Y-5)$
7) Bassem is $K$ years old now, how old will he be after 5 years?
a) 5 K
b) $5 \div K$
c) $\mathrm{K}-5$
d) $K+5$
8) What operations are in the algebraic expression for "twice a number increased by three"?
a) + and -
b) $X$ and -
c) $X$ and +
d) + and -
9) What verbal expression for $5 X-7$ is ..
a) 5 multiplied by $X$ increased by 7
b) 5 times a number $X$, lesss than 7
c) 5 times a number $X$, less 7
d) 7 decreased by $5 X$

## October 2023

## Revision G6

(1) Choose the correct answer:

1) In the equation $384 \div 16=24$, the dividend is
a. 384
b. 16
c. 24
d. 0
2) If $40 \div 5=8$, then the remainder is $\qquad$
a. 40
b. 5
c. 8
d. 0
3) In the equation $29 \div 3=9 \mathrm{R} 2$, the divisor is
a. 29
b. 3
c. 9
d. 2
4) If Mona has 17 oranges and she wants to distribute them equally among 3 of her friends, how many oranges are left?
a. 17
b. 3
c. 5
d. 2
5) Which is the correct relation which represents the following statement: ( distribute 16 crayons equally among 4 students )
a. $16 \times 4$
b. $16 \div 4$
c. $16+4$
d. 16-4
6) The number $\qquad$ is a multiple of any number
a. 0
b. 1
c. 2
d. 3
7) The common factor of all numbers is
a. 0
b. 1
c. 2
d. 3
8) Which of the following are relatively prime numbers?
a. 4 and 8
b. 12 and 18
c. 6 and 12
d. 9 and 4
9) The G.C.F of 6 and 10 is $\qquad$
a. 2
b. 4
c. 6
d. 15
10) From the opposite Venn diagram the G.C.F $=$
a. 6
b. 5
c. 42
d. 30


## October 2023

## Revision G6

11) From the opposite Venn diagram the G.C.F $=$
a. 0
b. 1
c. 5
d. 35

12) The L.C.M of 5 and 7 is
a. 12
b. 35
c. 1
d. 0
13) In the opposite Venn diagram the L.C.M $=$
a. 0
b. 1
c. 12
d. 3

14) The following Venn diagram represents the prime factorization of the two numbers which are $\qquad$
a. 3 and 5
b. 2 and 3
c. 2 and 5
d. 6 and 10

15) $20+25=$ $\qquad$
a. $5(5+2)$
b. $5(4+5)$
c. $20(1+5)$
d. $25(4+5)$
16) $3(5+2)=$
a. $8+5$
b. $3+7$
c. $15+10$
d. $15+6$
17) The expression which represents the opposite Venn diagram is $\qquad$
a. $4(3+0)$
b. $4(3+1)$
c. $3(2+2)$
d. $3(4+0)$

18) The expression which represents the following figure is

| $g$ | $g$ | $g$ |
| :--- | :--- | :--- |
| $c$ | $c$ |  |


| $g$ | $g$ | $g$ |
| :---: | :---: | :---: |
| $c$ |  | $c$ |


| g | g | g |
| :---: | :---: | :---: |
| c | c |  |


| g | g | g |
| :--- | :--- | :--- |
| c | c |  |


| g | g | g |
| :---: | :---: | :---: |
| c | c |  |

a. $3(2+5)$
b. $2(3+5)$
c. $5(3+2)$
d. $5(5+1)$
19) $\frac{2}{3}+\frac{1}{4}=$
a. $\frac{3}{7}$
b. $\frac{3}{12}$
c. $\frac{11}{12}$
d. $\frac{7}{12}$

## October

## Revision G6

20) $5 \frac{1}{2}+2 \frac{2}{5}=$ $\qquad$
a. $7 \frac{3}{5}$
b. $7 \frac{9}{10}$
C. $\frac{9}{10}$
d. $7 \frac{4}{5}$
21) $\frac{2}{5}+\frac{4}{5}+\frac{1}{5}=$ $\qquad$
a. $\frac{8}{5}$
b. $1 \frac{2}{5}$
C. $\frac{5}{7}$
d. $1 \frac{2}{7}$
22) $\frac{5}{6}-\frac{3}{4}=$
a. $\frac{2}{10}$
b. $\frac{3}{5}$
C. $\frac{3}{24}$
d. $\frac{1}{12}$
23) $6-2 \frac{1}{3}=$ $\qquad$
a. $4 \frac{2}{3}$
b. $3 \frac{2}{3}$
c. $2 \frac{1}{3}$
d. $8 \frac{2}{3}$
24) The number 0 is a $\qquad$ number.
a. Counting
b. Positive
c. Negative
d. Natural
25) The number -3 is $\qquad$ number.
a. Counting
b. Natural
c. Integer
d. positive
26) Which of the following numbers is a counting number?
a. -5
b. 2
C. -2
d. 0
27) The integer numbers consists of negative numbers and $\qquad$ numbers.
a. Positive
b. Counting
c. Natural
d. Otherwise
28) The smallest positive integer is $\qquad$
a. 0
b. 1
c. -1
d. 2
29) The greatest non-positive integer is $\qquad$
a. 1
b. -1
c. 0
d. -2
30) The greatest negative integer is
a. 0
b. 1
c. -1
d. 2

## October 2023

## Revision G6

31) Which of the following is an integer
a. $\frac{15}{2}$
b. $\frac{15}{3}$
C. $\frac{15}{4}$
d. $\frac{5}{3}$
32) Which integer represents the following:

A plane flying at an altitude 425 meters above ground level
a. +425
b. -425
c. 0
d. Otherwise
33) Which integer represents the following:

A submarine at a depth of 20 meters below sea level
a. 2
b. 20
c. -20
d. 2
34) An integer included between - 2 and 3 is
a. 5
b. -3
C. -4
d. -1
35) The integer which comes just before the number - 5 is
a. - 4
b. -6
C. 4
d. 6
36) The number of integers between - 2 and 2 is
a. 2
b. 3
C. 4
d. 5
37) The distance between the number 2 and its opposite on the number line equals $\qquad$
a. 2
b. -2
C. 4
d. 0
38) The additive inverse of -5 is $\qquad$
a. 5
b. -5
C. 0
d. Otherwise
39) The additive inverse of zero is $\qquad$
a. 1
b. 0
c. -1
d. Otherwise
40) The sum of any two opposite numbers is
a. 0
b. 1
c. 2
d. - 1
41) Which of the following is the correct statement? $\longleftrightarrow \stackrel{a}{b}$
a. $\mathrm{a}>\mathrm{b}$
b. $\mathrm{a}<\mathrm{b}$
c. $\mathrm{b}<\mathrm{a}$
d. $a=b$

## October

## Revision G6

42) $0.8 \ldots \ldots 0.75$
a. >
b. <
C. $=$
d. Otherwise
43) $\frac{3}{5} \ldots \ldots \frac{2}{3}$
a. >
b. <
c. $=$
d. Otherwise
44) $-\frac{4}{7} \quad \ldots \ldots \frac{5}{6}$
a. >
b. <
c. $=$
d. Otherwise
45) $-6.25<$ $\qquad$
a. -7.5
b. $-8 \frac{1}{2}$
c. 0
d. -9.15
46) 32 is $\qquad$ the set of counting numbers
a. Belong to
b. Not belong to
c. Subset of
d. Not subset of
47) The set of integer numbers is $\qquad$ the set of rational numbers
a. Belong to
b. Not belong to
c. Subset of
d. Not subset of
48) The number $\frac{2}{5}$ is belongs to the set of the $\qquad$ numbers.
a. Natural
b. Counting
c. Integer
d. rational
49) Which of the following is the smallest rational number?
a. -6
b. $-4 \frac{3}{5}$
c. -2.35
d. 0
50) The number $\qquad$ is lying between 3.15 and 3.2
a. 3.7
b. 3.17
c. 3.1
d. 3.22
51) The number of rational numbers lying between $\frac{2}{5}$ and $\frac{4}{5}$ is $\qquad$
a. 1
b. 2
C. 3
d. An infinite number
52) The point which represents the number $-2 \frac{3}{4}$ on the following number line is

a. e
b. f
C. g
d. $h$

## Revision G6

53) The number $-2 \frac{1}{3}$ in the form $\frac{a}{b}$ is
a. $\frac{7}{3}$
b. $-\frac{7}{3}$
c. $\frac{3}{7}$
d. $-\frac{3}{7}$
54) $|-10|=$ $\qquad$
a. 0
b. 1
c. 10
d. -10
55) $|0|=$ $\qquad$
a. 0
b. 1
c. 10
d. -10
56) $-|-3| \ldots \ldots-(-3)$
a. >
b. <
c. $=$
d. Otherwise
57) $|-5|>$ $\qquad$
a. $\mid 5$ |
b. 16 I
c. 9
d. -5
58) Which of the following is an algebraic expression?
a. $3+5$
b. $9+8-0$
c. $2 m+5$
d. $3+(2+1)$
59) The number of terms in the algebraic expression $3 x+y-5$ is
a. 1
b. 2
c. 3
d. 4
60) Which of the following are like terms?
a. $3 x, 3$
b. $x, y$
c. $x, 2 x$
d. $3 m, 3 n$
61) Which of the following algebraic expressions has 2 terms?
a. $x+2 y-7$
b. $5 x-1$
c. $3 x$
d. $x y$
62) The constant in the expression $3 m+n+2$ is
a. 1
b. 2
c. 3
d. 0
63) The coefficient in the algebraic expression $3 x+y+2$ is $\qquad$
a. 3, 1, 2
b. 3,1
c. 3
d. 2
64) If we subtract 3 from the number, the expression is $\qquad$
a. $3 x$
b. $x-3$
c. $3-x$
d. $x+3$

## October 2023

## Revision G6

65) Subtracting 5 from double of a number $=$ $\qquad$
a. $5-b$
b. $2 b-5$
c. $5-2 b$
d. $b-5$
66) The algebraic expression of " three times a number added to 14 " is
a. $3 x+14$
b. $3 x-14$
c. $x+14$
d. $x-14$
67) Twice the sum of a number and 3 is $\qquad$
a. $2 y+3$
b. $2(y+3)$
c. $2 y-3$
d. $2(y-3)$
68) Elias saved $x$ L.E and his father gave him 10 L.E, he will have
a. $10 x$
b. $x-10$
C. $10-x$
d. $x+10$
69) Adam is $x$ years old. How old was he before 5 years?
a. $5 x$
b. $5-x$
C. $x-5$
d. $5+10$
70) The verbal expression of $3 x-5$
a. 3 multiplied by $x$ increased by 5
b. 3 times a number $x$, less than 5
c. 3 times a number $x$, less 5
d. 5 decreased by $3 x$
(2) Complete:
71) The quotient in the equation: $438 \div 5=87 \mathrm{R} 3$ is $\qquad$
72) The common factor of all numbers is $\qquad$
73) $6(2+4)=12+$ $\qquad$
74) The G.C.F of 3 and 5 is $\qquad$
75) The opposite of zero is
76) The smallest counting number is $\qquad$
77) The greatest negative integer is $\qquad$
78) The smallest non-negative integer is $\qquad$
79) $5-2 \frac{1}{4}=$ $\qquad$
80) The opposite of $1-2 I=$ $\qquad$

## Revision $\mathbf{G 6}$

11) $|f| x \mid=5$, then $x=$ $\qquad$ or
12) $|-2| \times|2|=$
13) $|5|+|0|=$
14) The number of terms in the algebraic expression $5 x+3$ is
15) The constant in the expression $5 x+3 y+4$ is
16) The coefficient in the algebraic expression $5 m-3$ is
17) The algebraic expression of " the quotient of a number $x$ by $2 "$ is
18) The algebraic expression of " twice the sum of a number and 5 " is
19) The verbal expression of " $4+x$ " is
20) The verbal expression of " $2 m-5$ " is
(3) Answer the following:
21) A factory produces 945 bottles of juice weekly. How many bottles did the factory produce daily?
$\qquad$
$\qquad$
$\qquad$
22) Use Venn diagram to find: G.C.F and L.C.M of 12 and 18
$\qquad$
$\qquad$
$\qquad$
23) Ahmed has 8 oranges and 12 bananas. He wants to make baskets with the same number of each fruit in each basket.
a. what is the greatest number of baskets he can make?
b. write the expression which represent that.
$\qquad$
$\qquad$
$\qquad$

## October 2023

## Revision G6

4) From the opposite Venn diagram:
a. The value of $x=$
b. The value of $Y=$
c. The G.C.F =
d. The L.C.M $=$

5) Salma bought $3 \frac{1}{2} \mathrm{~kg}$ of tomato, and $1 \frac{1}{4} \mathrm{~kg}$ of onion. What is the total mass of vegetable that salma bought?
$\qquad$
$\qquad$
$\qquad$
6) Arrange the following in descending order:

$$
2,-4,-8,7,0
$$

$\qquad$
$\qquad$
7) Arrange the following from the least to the greatest:

$$
3.5,6 \frac{1}{2},-1,-2.5
$$

$\qquad$
$\qquad$
8) Write two rational numbers lies between: $\frac{1}{3}$ and $\frac{4}{5}$
$\qquad$
$\qquad$
$\qquad$
9) Write the algebraic expression which represent:

Subtract 5 from the half of the number $x$
$\qquad$
$\qquad$
10) Write the verbal expression which represent: $3(n+5)$
$\qquad$
$\qquad$
$\qquad$

## October

 2023
## Answer guide G6

1) Choose:

| 1) $a$ | 11) b | 21) b | 31) b | 41) b | 51) d | 61) b |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2) $d$ | 12) b | 22) d | 32) a | 42) a | 52) a | 62) $b$ |
| 3) $b$ | 13) c | 23) b | 33) c | 43) b | 53) b | 63) $b$ |
| 4) d | 14) d | 24) d | 34) d | 44) b | 54) c | 64) $b$ |
| 5) $b$ | 15) b | 25) c | 35) b | 45) c | 55) a | 65) $b$ |
| 6) $a$ | 16) c | 26) $b$ | 36) b | 46) a | 56) b | 66) a |
| 7) $b$ | 17) b | 27) c | 37) c | 47) c | 57) d | 67) b |
| 8) d | 18) c | 28) b | 38) a | 48) d | 58) c | 68) d |
| 9) $a$ | 19) c | 29) c | 39) b | 49) b | 59) c | 69) c |
| 10) a | 20) b | 30) c | 40) a | 50) b | 60) c | 70) c |

## 2) Complete:

1) 87
2) 1
3) 1
4) -1
5) $5,-5$
6) 5
7) 24
8) 0
9) 1
10) $2 \frac{3}{4}$
11) 4
12) $x \div 2$
13) 5
14) $2(x+5)$
15) 2
16) The sum of $x$ and 4
17) 5 less than the double
18) 0
19) -2
20) 4
21) of a number $m$

## 3) Essay:

| 1) | The number of bottles $=945 \div 7=135$ bottle |  |  |
| :---: | :---: | :---: | :---: |
| 2) | $\begin{aligned} & 12=2 \times 2 \times 3 \\ & 18=2 \quad \times 3 \times 3 \end{aligned}$ $\text { G.C.F }=2 \times 3=6$ $\text { L.C.M }=2 \times 2 \times 3 \times 3=36$ | 3) | $\begin{aligned} & 8=2 \times 2 \times 2 \\ & 12=2 \times 2 \times 3 \\ & \hline \text { G.C.F }=2 \times 2=4 \end{aligned}$ <br> a. 4 <br> b. $4(2+3)$ |
| 4) | a. 30 <br> b. 18 <br> C. 3 <br> d. 180 <br> The total mass $=3 \frac{1}{2}+1 \frac{1}{4}=4 \frac{3}{4} \mathrm{~kg}$ |  |  |
| 5) |  |  |  |
| 6) | $7,2,0,-4,-8$ | 7) | -2.5, - $1,3.5,6 \frac{1}{2}$ |
| 8) | $\frac{6}{15}, \frac{7}{15}, \frac{8}{15}$ | 9) | $\frac{1}{2} x-5$ |
| 10) | Three times the sum of the number n and 5 |  |  |

## Unit 1

Lesson 1: using long division in the real wourld
Ex1: divide using the standard division algorithm
a) 6474
b) $\mathbf{3} 225$
c) $\mathbf{2 4} 552$

Ex2: A hotel consists of 13 floors and each floor contains 325 rooms how many rooms are there in this hotel?

Ex3: Ali and his friends collected 216 pounds to distribute to the poor, if this amount was distributed to 18 people ,How much was the share of each person?

## Lesson 2: factorize the number into its prime factors

Ex: use venn diagram to find (G.C.F) and (L.C.M) of each of the following :
a) 16 and 20
G.C.F =

L.C.M = ........................
b) 20 and 30
G.C.F =

L.C.M =

Ex: using the following diagram,complete:


1) the two numbers represented in the venn diagram are And
2) the common prime factors of the two numbers are
3) the G.C.F for the two numbers is $\qquad$
4) the L.C.M for the two numbers is

## Lesson3: writing expressions using G.C.F

Ex 1: complete the following
a) $5 \mathrm{X}(7+5)=(5 \mathrm{X} . \ldots .)+.(\ldots . . \mathrm{X} 2)$
b) $2 \times(\ldots . .+\ldots .)=.(\ldots \ldots .$. X 3 ) (...... X 5 )
c) the G.C.F for 15 and 18 is
d) the G.C.F of all numbers is

Ex 2: use the G.C.F to write the numerical expressions of each of the following
a) lina has 6 oranges and bananas what is the largest number of bags that can be made so that all bags include the same numbers of items ?
b) the students collected 30 boxes of cheese and 40 bags of legumes what is the largest number of baskets of food that can be prepared with out any food left ?

Lesson 4 : factorize the least common multiple

Ex)find the result
a) $\frac{3}{5}+\frac{1}{5}=$
b) $\frac{1}{5}+\frac{1}{2}=$
c) $\frac{1}{4}+\frac{1}{12}=$
d) $\frac{5}{6}-\frac{1}{2}=$
e) $1+\frac{2}{9}=$
f) $\frac{3}{4}+\frac{2}{3}=$
g) $2 \frac{1}{3}+1 \frac{1}{2}=$
h) $3 \frac{1}{3}-1 \frac{2}{3}=$
i) $\frac{2}{5}+\frac{1}{3}=$

## Unit 2

## Lesson 1

## Exercise1:

Write an integer to represent each of the following situations:

1) the value of the profit is 25 Egyptian pounds. (.................)
2) the value of the loss is 3 pounds.

3) the temperature is 10 degrees below zero. $\qquad$
4) building height 12 meters.

5) the drop is 19 m . underground. $\qquad$
6) move 4 steps back.

Numbers increasing


Numbers decreasing
Exercice2: write the numbers indicated by the symbols shown on each of the horizontal number line and the vertical number line :

D.0.0.0.0.0.0.0.0.0.0.0.

$\begin{array}{llllllllllll}g & -4 & -3 & f & -1 & a & e & 2 & 3 & b & 5 & c\end{array}$
$\square$
$\square$
$\square$
$\qquad$

## Lesson 2

Put ( $>,<,=$ ):





## 9

Find the inverse (opposite):
$-12 \rightarrow$
$-3 \rightarrow \ldots \ldots$.
$25 \rightarrow \ldots \ldots$.
$8 \rightarrow \ldots \ldots \ldots$
$1 \rightarrow$
$-1 \rightarrow \ldots \ldots \ldots$

Choose the correct answer:
a) the number -3 is located to the right of the number on the number line .
(4 or 4 or 2 or 12)
b) the inverse of -12 is the number
(12 or 12 or 1 or 2 )
c) the number ........ is neither a positive nor a negative number.
(0 or 1 or 1 or 10 )

## Lesson 3

Classify all the following numbers according to the number groups shown :

|  | counting | natural | integers | Rational |
| :---: | :--- | :--- | :--- | :--- |
| 5 |  |  |  |  |
| 0 |  |  |  |  |
| -7 |  |  |  |  |
| 3.5 |  |  |  |  |
| $\frac{3}{5}$ |  |  |  |  |

## Example 1: Write the following rational numbers in fraction form:

A) 0.75
(b) -45
c) 4
d) 0
e) $3 \frac{1}{5}$
f) -1.5
find the opposite number (additive inverse) of each of the following
1- - 0.8
2- $-\frac{3}{4}$,
3- 6.3

4-2.5
5- 0
6-3 $\frac{1}{7}$
Put ( < , > , =):
$\frac{2}{5} \square \frac{3}{5}$
$-\frac{6}{7} \square \frac{7}{7}$
$-\frac{2}{7} \square-\frac{3}{4}$
$\frac{3}{8} \square \frac{3}{5}$
$-\frac{2}{5} \square \frac{2}{3}$
$\frac{2}{7} \square \frac{1}{3}$

## Lesson 4

$$
-5 \frac{1}{5}, \quad 2.2,-5 \frac{1}{4},-5.5,2 \frac{3}{4}
$$

ascending $\qquad$
$\qquad$
$\qquad$
$\qquad$ -
descending $\qquad$
$\qquad$ - $\qquad$

Example : identify the following numbers on the number line :
$6 \frac{3}{4}$ Is lie between the numbers

$\frac{1}{2}$ Is lie between the numbers $\qquad$



## Lesson 5

## Find the value of each :

$|-5|=\ldots \ldots . \quad\left|-\frac{3}{4}\right|=\ldots \ldots . \quad\left|-7 \frac{2}{3}\right|=$
$|6|=\ldots \ldots \ldots . \quad|0.03|=\ldots \ldots . \quad\left|7 \frac{3}{5}\right|=$
Put ( < , > , =):
$I-8.2 I \square-7.9$

$$
\left|-\frac{8}{3}\right| \square\left|2 \frac{2}{3}\right|
$$

$-3 \frac{4}{5}$

|-9| $\square$ $\mid-8$ |

Ex: Arrange all of the following :

$$
\text { 8, I-3|, , I7, -9, I } 27
$$

Ascending

$$
23,1-7 \text { I , - } 17,-9,127
$$

descending

$$
\text { , IT, I-7.5 I , I. , - } 9.6 \text {, I }
$$

Ascending

## Lesson 6

Find each of the following :
$|-5|=\ldots \ldots \ldots \ldots . \quad\left|\frac{7}{9}\right|=\ldots \ldots \ldots \ldots . \quad|0.03|=\ldots$
$|6|=\ldots \ldots \ldots \ldots . \quad\left|-\frac{3}{4}\right|=\ldots \ldots \ldots . \quad|7.04|=$
Ex: Complete all of the following
I) If $\mathrm{IaI}=5$, then $\mathrm{a}=\ldots \ldots . . .$.
2) If it is $I-7 I=b$, then............
3) If $n=191$, then $n=.$.
4) $-15 I=\ldots \ldots \ldots \ldots \ldots$
6) $191+1-91$
7) What's the biggest? .........-7.2 or -7.22
Put ( < , > , =):

$$
\begin{aligned}
& \left|-\frac{8}{3}\right| \square\left|2 \frac{2}{3}\right| \quad\left|3 \frac{1}{4}\right| \square\left|-7 \frac{2}{5}\right| \\
& 4 \frac{3}{4} \square\left|2 \frac{2}{3}\right| \quad|3.4| \square|-3.4|
\end{aligned}
$$

## Unit 3

## Lesson 1:

1) classify the following mathematical expressions into numerical expressions or algebraic expressions :

$$
5 / 2+7.8 /-\quad / 7(1.4+3.2) /-\quad / 2(m+7)
$$

/54-2 / 5(7) +3 / -

| Numerical expression | Algebraic expression ( <br> symbolic ) |
| :--- | :--- |

2) write an algebraic expression for each of the following: a) if Bassem is $x$ years old now, how old will he be after 5 years?
B) suzan saved y L.E. and her father gave her L.E. 10 how much money suzan have ?

## Lesson 2:

1) determine the number of terms and like terms for the following algebraic expressions :

| Mathematical <br> expression | Number of <br> terms | like terms |
| :--- | :--- | :--- |
| 6 |  |  |
| $5 m+3 m+2$ |  |  |
| $7+9 x+9$ |  |  |
| $x+3+2 y+2$ |  |  |
| $4+8$ |  |  |
| $5 n+2 n+10$ |  |  |

2) determine the constants and coefficients in each of the following algebraic expressions:

| Mathematical <br> expression | constants | Coefficients |
| :--- | :--- | :--- |
| $16+3+y$ |  |  |
| 5 |  |  |
| $20+\frac{1}{4} x+3 y$ |  |  |
| $6 a+2+3 a$ |  |  |
| $0.7 q+0.2 r+0.8 \mathrm{~m}$ |  |  |

3) in the following algebraic expression,
$10 x+20 x+25$
Determine:
a) number of terms:
b) like terms:
c) constants:
d)coefficients:

Lesson 3

1) write each of the following algebraic expression in verbal expression
a) $m+8$
b) $x-10$
c) $v \div 4$
d) $3 Y$
e) $\frac{Z}{2}$
2) write the algebraic expression for each of following verbal expression
a) the sum of 3 and 5 multiplied by $X$
b) the product of 2 and $y$
c) the product of $4 X$ and 2
d) the sum of 5 and the quantity 2 times $C$

## Unit (1) Assessment

[1] Choose the correct answer:
(1) If $384 \div \mathbf{1 6}=\mathbf{2 4}$, then the dividend is $\qquad$
a 384
(b) 16
C 24
(d) 0
(2) If $40 \div 5=8$, then the remainder is
(a) 40
(b) 5
C 8
(d) 0
(3) If $29 \div \mathbf{3}=\mathbf{9} \mathbf{R 2}$, then the divisor is
(a) 29
(b) 3
C 9
d 2
(4) The GCF of 6 and 8 is $\qquad$
a 1
(b) 2
C 3
d 4
(5) The common factor of all numbers is $\qquad$
a 0
(b) 1
C 2
d 3
(6) The GCF of any two relatively prime numbers is
a 0
(b) 1
(C) 2
d 3
(7) The common multiple of all numbers (except zero) is
a 0
(b) 1
(C) 2
d 3

[2] From the opposite Venn diagram, Complete:
(1) The GCF of the two numbers is $\qquad$
(2) The LCM of the two numbers is $\qquad$
(3) The first number is $\qquad$

(4) The second number is $\qquad$

[3] Essay Problems:
(1) Salma bought $3 \frac{1}{2} \mathrm{~kg}$ of tomatoes and $1 \frac{1}{4} \mathrm{~kg}$ of onions. How many kilograms of vegetables did she buy?
(2) Ali bought a bottle of juice contains $1 \frac{1}{2}$ liters. He drank $\frac{2}{5}$ Liters. How many liters of juice were left?

## Unit (2) Assessment

[1] Choose the correct answer:
(1) The number -7 is located to the right of the number $\qquad$ on the number line.
(a) -8
(b) 8
(C) -6
d 6
(2) The number $\qquad$ is neither negative nor positive.
a 0
(b) 1
C -1
(d) 10
(3) The smallest non-negative integer is $\qquad$
a - 1
(b) 1
C 100
d) 0
(4) $-0.3=$ $\qquad$ (in the form $\frac{a}{b}$ )
a $\frac{10}{3}$
(b) $\frac{-3}{1}$
C $\frac{-1}{3}$
(d) $\frac{-3}{10}$
(5) $|-3.7|=$ $\qquad$
a 3.7
(b) 37
(C) -3.7
(d) -37
(6) The absolute value of zero = $\qquad$
(a) 1
(b) 10
(C) 0
(d) -1
[2] Complete:
(3) The greatest non-positive integer is $\qquad$
(4) The smallest positive integer is
(5) The integer that represents $7^{\circ} \mathrm{C}$ below zero is $\qquad$
(6) The integer that comes just after -8 is $\qquad$
(7) If $|\mathrm{a}|=8$, then $\mathrm{a}=$ $\qquad$ or $\qquad$
[3] Order the given set of numbers from least to greatest:

| $\|-0.8\|$ | $\frac{-1}{4}$ | $\left\|\frac{-1}{2}\right\|$ | $\frac{-3}{5}$ | 0.7 | $\cdots \cdots$ | $\ldots \ldots$. | $\ldots \ldots$ | $\ldots \ldots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

[4] Complete using (<) , (>) , or (=):
(1) -3.8

(2) $-3 \frac{7}{8}$ $\square$ $\left|-3 \frac{5}{8}\right|$
(4) $\left\lvert\, \frac{2}{5}\right.$
$\left|\frac{2}{5}\right|$ $\square$ $|-0.4|$
(5) $|-2.5|$ $\square$ ${ }^{-3.6 \mid}$

## Unit 3 Concept 1

[1] Choose the correct answer:
(1) The algebraic expression $\frac{1}{5} \mathrm{k}$ consists of ...... factors.
(a) 1
(b) 2
C 3
(d) 4
(2) In the algebraic term 9 zy y the coefficient $=$ $\qquad$
(a) 9
(b) 2
C 3
(d) 4
(3) The algebraic term -5 xz has $\qquad$ Factors.
(a) 1
(b) 2
C 3
d 4
(4) The number of terms that make up the algebraic expression (5 m + $2 \mathrm{n}-9$ ) is
(a) 1
(b) 2
C 3
d 4
(5) The like terms in the algebraic expression ( $5 \mathrm{~m}+2 \mathrm{n}-9 \mathrm{~m}+2$ ) are $\qquad$
(a) $2 \mathrm{n}, 2$
(b) $5 \mathrm{~m},-9 \mathrm{~m}$
(C) $5 \mathrm{~m}, 2 \mathrm{n}$
d nothing

[2] Complete:
(1) The algebraic factor in the term $8.5 \mathbf{k}^{2}$ is $\qquad$
(2) The coefficient of algebraic term $5 x^{2} y$ is $\qquad$
(3) The number of terms and the algebraic expression $\mathbf{3 m - 2 n + 8}$ is $\qquad$
(4) Like terms in the algebraic expression $\mathbf{3 a + 2 b - 5 a + 9}$ are $\qquad$
(5) The constant in the algebraic expression $5 \mathrm{k}+8$ is $\qquad$
(6) The number of variables in the algebraic expression $3 x y+2 z+5 m$ is $\qquad$
(7) The coefficients in the algebraic expression $5 k+3 \mathrm{~m}-8$ are $\qquad$
(8) Two numbers the sum of them is 10 if first one is " x " so the second one is
(9) Ahmed and Tamer have 60 pounds if Ahmed has " $x$ " pounds, then Tamer has pounds.


## Q1: Choose the correct answer:

1) If $\mathbf{3 8 4} \div \mathbf{1 6}=\mathbf{2 4}$, then the dividend is
( 348 or 16 or 24 or 0 )
2) Farida made 47 cookies which she will distribute equally in tiny glass jars. If each jar is to contain 6 cookies each, how many cookies will not be placed in a jar?

$$
(47 \text { or } 5 \text { or } 6 \text { or } 7 \text { ) }
$$

3) Murad has 120 crayons distribute them among 6 of his friends, how many crayons are left?
4) The common factor of all numbers is

$$
\left(\begin{array}{llllll} 
& \text { or } & \text { or } & \text { or } & 3
\end{array}\right)
$$

$$
(0 \text { or } 1 \text { or } 2 \text { or } 3)
$$

5) The greatest common factor of 6 and 8 is $\qquad$

$$
(4 \text { or } 1 \text { or } 2 \text { or } 3)
$$

6) The common multiple of all factors is

$$
1 . . . .
$$

$$
\left(\begin{array}{lllllll}
0 & \text { or } & 1 & \text { or } & 2 & \text { or } & 3
\end{array}\right)
$$

7) The following Venn diagram represents the prime factorization of two numbers which are ......
( 3 and 5 or 2 and $3 \|$ or 2 and 5 or 6 and 10
8) The G.C/f of any two/ prime/numbers is E.A.CHER $R$

9) The following expression represents the greatest number of bags can be made from potatoes and carrot respectively: $(6 \times 6)+(6 \times 3)$ then the total number of carrots in all bags is $\qquad$ ( 6 or 36 or 18 or 9 )
10) The following expression represents the greatest number of bags can be made from mangos and bananas respectively, then the number of all bags is $\qquad$

11) The following expression represents the greatest number of baskets water and juice bottles respectively: $(10 \times 3)+(10 \times 5)$
, then the number of all bottles in each basket is $\qquad$
( 10 or 8 or 15 or 80 )
12) The equivalent fraction of $\frac{12}{15}$ is

$$
\begin{aligned}
& \text { is .............. } \left.\frac{2}{5} \text { or } \frac{3}{4} \text { or } \frac{4}{5} \text { or } \frac{1}{3}\right) \\
& \left(3 \frac{5}{12} \text { or } 4 \frac{5}{12} \text { or } \frac{17}{12} \text { or } 4\right)
\end{aligned}
$$

13) $2 \frac{3}{4}+1 \frac{2}{3}=$
14) $984 \div 5=$ $\qquad$
( 196R0 or 5R4 or 196R4 or 196R5 ) 15) Ahmed saves 45 L.E weekly, After how many weeks will he save 720 L.E? ( 32,400 or 765 or 16 or 675 )
15) Which of the following are relatively prime numbers ?
( 4 and 8 or 12 and 18 or 2 and 12 or 9 and 4 ) 17) $20+25=$ $\qquad$ $(2(0+5)$ or $5(5+2)$ or $5(5+4)$ or $20[0+5])$ 18) From the opposite venn diagram, the expression is $\qquad$


$$
(10(6+35) \text { or } 3(10+7) \text { or } 7(10+3) \text { or } 10(2+7))
$$

19) $8[3+5]=$ $\qquad$
( $124+13$ A or $(C 3(8 \mp 5) A$ or $H 24+40$ or $11+13$ ) 20) The GCF of 5 and 29 is
20) $13,510 \div 23=587$ R .........
$\& 08$ or 7 or 5 or 29 )
( 9 or 8 or 7 or 6 )
21) The LCM of two relatively prime numbers is $\qquad$
( 0 or 1 or their sum or their product )
22) 8 and $\qquad$ are two relatively prime numbers.
( 4 or 12 or 21 or 24 )
23) ........... $\times(5+1)=(7 \times 5)+(7 \times 1)$
( 6 or 35 or 1 or 7 )

## Q2: Complete the following:

1) If $6,048 \div 24=252$, then $24 \times 252=$ $\qquad$
2) The number which if we divided by 34 , the quoient will be 102 , and the remainder is 11 , is $\qquad$
3) The smallest prime number is
4) The smallest odd prime number is
5) The only even prime number is
6) The prime factors of 15 are
7) The least common multiple of the two relatively prime number is
8) The greatest 2 -digit prime number is
9) The prime number has only $\qquad$ factor(s).
10) All prime numbers are odd except $\qquad$ is an even number.
11) The common multiple of all numbers is $\qquad$
12) The common factor of all number is $\qquad$
13) A number whose prime factors are $\overline{2}, 3,7$ is HER.
14) Prime Tfactors of 24 are $1 . . . . . . . . . . . . . . . . . . . . . . . . . . .57$
15) The GCF of two prime numbers is
16) $5 \times(\ldots \ldots \ldots .+\ldots . . . .)=.(\ldots \ldots . . . . \times 2)+(\ldots . . . . . . . \times 4)$
17) $2 \frac{1}{3}+1 \frac{1}{4}=$
18) 

$-1 \frac{2}{3}=2 \frac{1}{4}$
19) $3 \frac{1}{2}$
$-\ldots . . . . . . .=1 \frac{3}{8}^{4}$

## Q3: Answer the following:

1) Ahmed has $\mathbf{1 , 3 7 8}$ oranges and need to pack them up equally in $\mathbf{2 5}$ boxes. How many oranges in each box?
2) A primary school is planning to a trip to the museum. There are 464 students. If each bus has 45 seats, how many buses will be needed to fill all the students?
3) The students collected 20 boxes of cheese and 40 bags of legumes. What is the largest number of baskets of food that can be prepared without any food left?
4) Karim 48 pencils and 18 crayons. What is the numerical expression of the greatest number of sets that can be made so that all sets include the same number of items?
5) The two numbers represented in the venn digram are-........... and

- The common prime factors of the two numbers are $\qquad$
- The GCF of the two numbers is $\qquad$

- The LCM of the two numbers is $\qquad$
- Are the two numbers relatively prime number?
(Yes or No)

6) The two numbers represented in the venn digram are $\qquad$ and $\qquad$

- The common prime factors of the two numbers are $\qquad$
- The GCF of the two numbers is
- The LCM of the two numbers is
$\qquad$
- Are the two numbers relatively prime number?

(Yes or No)

7) Nour prepared bags contain snacks. She has 6 oranges and 18 pieces of fruit, Nour wants the snacks in bags to be distributed evenly without any food left. How many bags of snacks can Nour Prepare?
8) Murad bought a pen for $9 \frac{1}{2}$ pounds, a ruler for $5 \frac{1}{4}$ pounds, and a notebook for 4 pounds.
How much did Murad pay?
9) Find GCF and LCM of 12 and 18 by factorization.
$\qquad$
MATHEMATICS TEACHER

10) Use venn digram to find GCF and LCM of :
a) 15 and 10
b) 27 and 4

## Q1: Choose the correct answer:

1) The number - 3 is $\qquad$ number. ( positive or Negative or integer or counting )
2) Which of the following is a counting number.

$$
\left(\begin{array}{llllll}
0 & \text { or } & -5 & \text { or } & \text { or } & -7
\end{array}\right)
$$

3) The smallest non-negative integer is $\qquad$ ( 1 or -1 or 0 or -10 )
4) The greatest negative integer is $\qquad$
( 1 or 0 or -1 or -10 )
5) The integer numbers consist of negative numbers and ............... numbers. ( positive or natural or counting or otherwise )
6) An integer included between -4 and $\mathbf{2}$ is

$$
\left(\begin{array}{llllll}
-5 & \text { or } & -1 & \text { or } 2 & \text { or } & 3
\end{array}\right)
$$

7) The integer which comes just before - 6 is

$$
(-5 \text { or } 7 \text { or }-7 \text { or } 5 \text { ) }
$$

8) The integer which comes just after - $\mathbf{- 1 1}$ is $\qquad$

$$
\left(\begin{array}{lllllll}
-10 & \text { or } & -12 & \text { or } & 10 & \text { or } & 12
\end{array}\right)
$$

9) The number of integers included between -2 and 4 is $\qquad$

$$
(4 \text { or } 5 \text { or } 6 \text { or } 3)
$$

10) The number of integers on the number line is $\qquad$
MATHEMAT/CS1 TOrA 100E Or 0 or infinite)
11)     - 5 is located to the right of the number
on the number line.
12) The opposite of 0 is $\qquad$
13) The additive inverse of - 12 is $\qquad$
( -12 or 1 or 12 or 2 )
14) The opposite of $5>$ $\qquad$
15) All positive number are ( -6 or 4 or -4 or 6 ) zero.
( equal to or less than or greater than or otherwise )
16) The largest non-positive integer is

$$
(1 \text { or }-1 \text { or } 0 \text { or }-100)
$$

17) The number - 2.5 is a/an $\qquad$ number.
( counting or integer or rational or natural )
18) The sum of any two opposite numbers is $\qquad$

$$
\left(\begin{array}{llllll}
1 & \text { or } & \text { or } & \text { or } & -1
\end{array}\right)
$$

19) Ahmed deposit of 500 L.E in the bank represents as $\qquad$

$$
(500 \text { or }-500 \text { or } 50 \text { or }-50 \text { ) }
$$

20) Which of the following is closer to the zero?

$$
(-7 \text { or }-4 \text { or } 2 \text { or } 5 \text { ) }
$$

21) The smallest counting number is
..........

$$
\left(\begin{array}{lllllll}
1 & \text { or } & 0 & \text { or } & -1 & \text { or } & -10
\end{array}\right)
$$

22) All integers are $\qquad$ numbers.
( counting or natural or even or rational ) 23) $-2 \frac{3}{4}$ is between the two whole numbers. ( 2,3 or 1,2 or $-2,-3$ or $-1,-2$ ) 24) The set of integer numbers .................. the set of rational numbers.
( belong to or not belong or subset to or not subset to ) 25) The set of integer numbers $\qquad$ the set of counting numbers.
( belong to or not belong or subset to or not subset to ) 26) -7 the set of natural numbers.
( belong to or not belong or subset to or not subset to ) 27) 0 ..............T.. theset/of counting numbers. $C H E R$
( belong to or not belong or subset to or not subset to ) 28) The set of counting numbers the set of natural numbers.
( belong to or not belong or subset to or not subset to )
23) $\frac{5}{6}$ the set of rational numbers.
24) $-2 \frac{5}{3}$ in a form of $\frac{a}{b}$ is written as

$$
\left(\frac{1 i}{3} \text { or } \frac{-25}{3} \text { or } \frac{-11}{3} \text { or } \frac{-7}{3}\right)
$$

31) The set of rational numbers $\qquad$ the set of natural numbers.
( belong to or not belong or subset to or not subset to )
mathematics teacher
32) The opposite of $|-4|$ is $\qquad$ ( 4 or -4 or 0 or otherwise ) 33) $|-2| \times 10=$ ( 20 or -20 or 2 or otherwise )
33) The distance between -4 and its opposite on the number line is $\qquad$ units).
34) The larger absolute value, the ( zero or 4 or 8 or -8 ) ( closer to or farther to or equal to or otherwise ) 36) The absolute value of 6.3 is
35) If $|x|=5$, then $x=\ldots . . . .$.

$$
(6.3 \text { or }-3.6 \text { or } 3.6 \text { or }-6.3 \text { ) }
$$

$$
(-5 \text { or } 0 \text { or } 5,-5 \text { or } 5 \text { ) }
$$

38) The distance between the opposite of 4 and 0 is

$$
(4 \text { or } 0 \text { or }-4 \text { or } 8)
$$

39) The smallest number from the following is

$$
(-7 \text { or }-1 \quad \text { or } 2 \text { or }|-15|)
$$

40) The best subset of the number -10 is ( rational or integer or natural or counting ) 41) ............. is lying between 3.14 and 3.2

$$
3.15 \text { or } 3.21 \text { or } 3.20 \text { or } 3.22 \text { ) }
$$

42) The number of rational numbers between $\frac{3}{5}$ and $\frac{4}{5}$ is ..........

## MATHEMATICS( 7 E $/ \mathrm{or}^{5} / 0 E$ Ar ${ }^{5} 2$ or infinite )

43) The number of integer numbers' lying between $\frac{537}{5}$ and $\frac{16}{5}$ is
( 3 or 0 or 2 or infinite )
44) The number of integer numbers lying between 3.1 and 3.2 is
( 3 or 0 or 2 or infinite ) 45) A negative number with an absolute value greater than 13 is .......... 46) $|-8|>$.........

$$
\left(\begin{array}{llllll}
10 & \text { or } & -9 & \text { or } & 17 & \text { or }
\end{array}-14\right)
$$

$$
(|-9| \text { or }|-7| \text { or } 9 \text { or } 8 \text { ) }
$$

## Q2: Complete the following:

1) The smallest positive integer number is $\qquad$
2) The number of integers between - $\mathbf{5}$ and $\mathbf{2}$ is
3) The integers between - 6 and 2 are $\qquad$
4) Thesmallest counting number is
5) The additive inverse of -5 is
6) The number just come after - 6 is
7) The number just come before - 9 is
8) The rational number - 6.25 is lying between two whole numbers and
9) Opposite numbers on a number line have the $\qquad$ absolute values.
10) $-\frac{3}{5}$ in the decimal form is
11) $-[-5]=$
12) $-|-3|=$
13)     - 6 in form of fraction is
14) The best subset of number 0 is $\qquad$
15) Integers between -3 and 2 on the number line are $\qquad$
16) The integer that express " move forward 6 steps" is $\qquad$
17)     - 5 is located to the left of the number $A . C . H$.... on the number line.
18) If $|x|=7_{2}$ then $x \in \ldots$......0r...3... 780857
19) 0 to set of rational numbers.
20) $\frac{15}{5}$ ..................... to set of counting numbers.
21) set of rational numbers $\qquad$ to set of integer numbers.
22) Set of counting numbers ................. to set of natural numbers.
23) The smallest non-negative integer is $\qquad$
24) The greatest non-positive integer is $\qquad$
25) The number-1.5 in fraction form is

## Q3: Answer the following:

1) Arrange the following in ascending order:

$$
2.8,-1.9,|-6.5|, 0,-0.5
$$

The order:

$$
3,-\frac{7}{2}, \frac{5}{2}, 3 \frac{1}{4}, 0,-11
$$

The order: $\qquad$
2) Arrange the following in descending order:

$$
7.5,-2 \frac{1}{3},-\frac{8}{9},|-1|,|-3.5|
$$

The order:
: ............. , .............. , ..............., ................., ..............

$$
-1 \frac{1}{3}, 2 \frac{1}{2},-4 \frac{1}{2},-\frac{3}{4}, 1 \frac{1}{2}
$$

The order:
: ............. , .............. , ................,
3) Write two rational numbers lying between each of the following pairs of numbers:

1)     - 5.1 and 5.2
2) $\frac{2}{3}$ and $\frac{4}{5}$
3) 2.5 and 2.6 THEM AT/ CS TEACHER
4) Locate each of the following points on the number line:

| Point | A | B | C | D | E | F | G | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | 5 | 0 | -2 | 3 | -1 | 1 | -4 | 2 |



## Q1: Choose the correct answer:

1) Which of the following is an algebraic expression?

$$
(44-3 \times 4 \text { or } 3+5 \text { or } 4 m+3 \text { or } 2+3-1 \text { ) }
$$

2) The coefficients in the algerbraic expression $5+3 y+2 k-9$ are $\qquad$
( 5,9 or 3,2 or $3,2,5,9$ or otherwise )
3) $3+5(\ldots . . .)+$.7 , complete to get a numeric expression.

$$
(a \text { or } k \text { or } 7+3 \text { or } b+c)
$$

4) Which of the following are like terms?
( 25,32 or $a b, d a$ or $a b, a q$ or $1, m$ )
5) The constant in the expression $3 y+5$ is
( 3 or $3 y$ or $3 y+5$ or 5 )
6) The number of terms of the expression: $5-2 m-3 m+4$ is $\qquad$

$$
(5 \text { or }-2 \text { or }-3 \text { or } 4 \text { ) }
$$

7) In the algebraic expression : $5 x-4+5 m+3$, the two like terms are $\qquad$
( 3 and 5 m or 3 x and 5 m or 3 and -4 or 5 x and 3 )
8) Twice the difference of a number and 5 is $\qquad$

$$
(2 y+5 / \text { or } 2 y-5 \text { or } 2(y+5) \text { or } 2(y-5) \quad)
$$

9) Eslam is $x$ years old now, how old will he be after 6 years ?

$$
\text { MATHEMATI G؟ } \subseteq \text { TE orl C } 6 x E \text { or } x+6 \text { or } x-6 \text { ) }
$$

10) Ahmed nöw y years old. how old wās he 3 yearshago?

$$
(y \div 3 \text { or } 3 y \text { or } y+3 \text { or } y-3)
$$

11) A square of side length " $m$ " cm , has perimeter of $\qquad$
( $m \div 4$ or $4 m$ or $m+4$ or $m-4$ )
12) If we subtract 4 from number $m$ the result is
( $4-m$ or $4 m$ or $m+4$ or $m-4$ )
13) Murad and farida have 70 pounds, if what Murad has is $k$ pounds, then what farida has is $\qquad$ pounds.
( $70+\mathrm{k}$ or $70-\mathrm{k}$ or 70 k or $70 \div \mathrm{k}$ )

## UNIT (3) <br> CONCEPT (1)

Grade 6

## Q2: Complete the following:

1) The algebraic expression for "a number less 7 ', is $\qquad$
2) The verbal expression for" $2 m-7$ " is $\qquad$
3) The number of terms of the expression: $3+4 x$ is $\qquad$
4) The constant in the expression $3 y+2 x-5$ is $\qquad$
5) The coefficient of $2+3 a-5$ is $\qquad$
6) " 4 increased by $m$ " in algebraic expression is
7) The verbal form of " $2 x+3$ " is $\qquad$
8) The like terms in the expression : $2 x+3 x+3$ are
9) The algebraic expression of "subtract 3 from $k$ " is $\qquad$
10) Twice the sum of a number and five is $\qquad$

## Q3: Answer the following:

1) A square of side length $L$, write an algebraic expression for the perimeter of this square?
2) Write verbal expression for each of the following algebraic expression:
a. $3(m+4)$
b. 8-3n
c. $\frac{1}{2} k$

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3) write an algebraic expression for each of the following verbal expressions:
a. Product of a number $p$ and 75 is $\qquad$
b. Three fifths a number $\mathbf{n}$ is $\qquad$
c. 8 decreased by three times a number is
d. Twice the sum of a number and three is
e. Add 6 to one third of a number is $\qquad$
f. The quotient of a number by 8 is increased by 12 is $\qquad$

## UNIT (1) ANSWER MODEL

Q1: Choose the correct answer:

| 1) 384 | 11) 8 | 21) 9 |
| :--- | :--- | :--- |
| 2) 5 | 12) $\frac{4}{5}$ | 22) their product |
| 3) 0 | 13) $4 \frac{5}{12}$ | 23) 21 |
| 4) 1 | 14) $196 R 4$ | 24) 7 |
| 5) 2 | 15) 16 |  |
| 6) 0 | 16) 9 and 4 |  |
| 7) 6 and 10 | 17) $5(5+4)$ |  |
| 8) 1 | 18) $10(2+7)$ |  |
| 9) 18 | 20) $24+40$ |  |
| 10) 6 |  |  |

Q2: Complete the follwoing:

1) 6,048
2) 3,479
3) 2
4) 0
5) 1
6) 42
7) $3 / M A T H E / M A T^{14)} 2,2$ 2, 2 and $3 / A C H E R$
8) $2 T E L: 010$ 6) 3,5
9) 13780857
10) their product
11) $3 \frac{7}{12}$
12) 97
13) 2
14) $\frac{7}{12}$
15) 2
16) $2 \frac{1}{8}$

## UNIT (1) <br> ANSWER MODEL

## Q3: Answer the following:

1) Number of oranges in the box $=1,378 \div 25=55 R 3$
2) Number of buses needed $=464 \div 45=10$ R 14
3) $40=2 \times 2 \times 5 \times 2$
$20=2 \times 2 \times 5$
The expression: $20(1+2)$
4) $48=2 \times 3 \times 2 \times 2 \times 2$

$18=2 \times 3$
$\times 3$
Expression: $6(8+3)$
5) numbers are : 30 and 42

Common factors : 2 and 3
GCF: 6
LCM: 210
No
6) Numbers are : 12 and 35

Common factors: 1
GCF: 1
LCM: 420
Yes
7) $18=[2 \times 2 \times 3 \times 3$ EMETICS TEACHER


Expression: $6(1+3)$, So Number of bags is 6
8) Murad pay $=9 \frac{1}{2}+5 \frac{1}{4}+4=18 \frac{3}{4}$
9) $18=2 \times 3 \times 3$

$$
12=2 \times 3 \quad x 2
$$

$$
\text { GCF }=2 \times 3=6
$$

$$
\mathrm{LCM}=2 \times 3 \times 3 \times 2=36
$$

10) 

a) $\mathrm{GCF}=5, \mathrm{LCM}=30$
3

b) $\operatorname{GCF}=1, \quad L C M=108$

3
3

## UNIT (2) ANSWER MODEL

## Q1: Choose the correct answer:

| 1) Integer | 11) -6 | 21) 1 | 31) not subset | 41) 3.15 |
| :--- | :--- | :--- | :--- | :--- |
| 2) 6 | 12) 0 | 22) rational | 32) -4 | 42) infinite |
| 3) 0 | 13) 12 | 23) $-2,-3$ | $33) 20$ | $43) 3$ |
| 4) -1 | 14) -6 | 24) subset | $34) 8$ | $44) 0$ |
| 5) natural | 15) greater than | 25) not subset | $35)$ farther to | $45)-14$ |
| 6) -1 | 16) 0 | 26) not belong | $36) 6.3$ | $46)\|-7\|$ |
| 7) -7 | 17) rational | 27) not belong | 37) $5,-5$ |  |
| 8) -10 | 18) 0 | 28) subset | 38) 4 |  |
| 9) 5 | 19) 500 | 29) subset | 39) -7 |  |
| 10) infinite | 20) 2 | 30) $\frac{-11}{3}$ | 40) integer |  |

Q2: Complete the following:

1) 1
2) 6
3) $-5,-4,-3,-2,-1,0,1=$
4) $1 T E L: 0$
5) 5
6) -5
7) -10
8) -6 and -7
9) equal
10) -0.6

| 11) $5 / \mathrm{F}$ | 21) not subset |
| :---: | :---: |
| 12) -3 | 22) subset |
| 13) $\frac{1-6 / C S}{1}$ TE | 23) 0 IER |
| 14) naturab 78 | O24)057 |
| 15) $-2,-1,0,1$ | 25) $\frac{-15}{10}$ |
| 16) 6 |  |
| 17) - 4 |  |
| 18) 7 or -7 |  |
| 19) belong |  |
| 20) belong |  |

# UNIT (2) <br> ANSWER MODEL <br> Grade 6 <br> October Rev 

## Q3: Answer the following:

1) The order: $-1.9,-0.5,0,2.8,|-6.5|$

- The order: $-11, \frac{-7}{2}, 0, \frac{5}{2}, 3,3 \frac{1}{4}$

2) The order: $7.5,|-3.5|,|-1|, \frac{-8}{9},-2 \frac{1}{3}$

- The order: $2 \frac{1}{2}, 1 \frac{1}{2}, \frac{-3}{4},-1 \frac{1}{3},-4 \frac{1}{2}$

3) 4)         - $5.11,-5.12$ (Answer may vary)
1) $\frac{21}{30}, \frac{22}{30}$ (Answer may vary)
2) $2.51,2.52$ (Answer may vary)
3) 



## Q1: Choose the correct answer:

1) $4 m+3$
2) 5
3) $x+6$
4) y -3
5) 4 m
6) $m-4$

## Q2: Complete the following:

1) $7-m$
2) double a number decreased by 7 (Answers may vary)
3) 2
4) -5
5) 3
6) $4+m$
7) two times a number added to 3
( Answers may vary)
8) $2 x, 3 x$
9) $k-3$
10) 10$) 2(k+5)$


## Q3: Answer the following:

1) 4 L
2) a. three times the sum of $m$ and 4
( Answers may vary)
b. three times a number less than 8
c. Half a number added to 9
3) a. 75 p
b. $\frac{3}{5} n$
c. 8-3x
d. $2(\mathrm{k}+3)$
e. $6+\frac{1}{3} m$
f. $(x \div 8)+12$
(Answers may vary)
( Answers may vary)

## 1 Choose the correct answer

(1) In the equation: $378 \div 25=15 \mathrm{R} 3$, the dividend is $\qquad$
(A) 378
(B) 25
(C) 15
(D) 3
(2) In the equation: $544 \div 12=45 \mathrm{R} 4$, the divisor is $\qquad$
(A) 544
(B) 12
(c) 45
(D) 4
(3) In the equation: $5,314 \div 15=354 \mathrm{R} 4$, the quotient is $\qquad$
(A) 5,314
(B) 15
(C) 354
(D) 4
(4) In the equation: $1,860 \div 32=58 \mathrm{R} 4$, the remainder is
(A) 1,860
(B) 32
(C) 58
(D) 4
(5) In the equation: $2,150 \div 25=86$, the remainder is
(A) 0
(B) 2,150
(6) $820 \div 24=34 R$ $\qquad$
(C) 25
(D) 86
(A) 0
(B) 2
(C) 4
(D) 6
(7) $6,280 \div 25=\sqrt{6.4} \ldots \ldots$
(A) $215 R 5$
(B) 251 R5
(C) 251
(D) 255 R1
(8) A school has 1,440 students which distributed between 24 classes equally. How many students are in each class?
(A) 40
(B) 50
(c) 60 -
(D) 70
(9) Eslam saves 210 L.E weekly. How much did he save daily?
(A) 10
(B) 20
(C) 30
(D) 40
(10) The smallest prime number is
(A) 0
(B) 1
(C) 2
(D) 3
(11) The smallest odd prime number is $\qquad$
(A) 0
(B) 1
(C) 2
(D) 3
(12) The only even prime number is
(A) 0
(B) 1
(C) 2
(ㅁ) 3
(13) The common factor of all numbers is
(A) 0
(B) 1
(C) 2
() 3
(14) The common multiple of all numbers is
(A) 0
(B) 1
(C) 2
(15) which of the following is a prime number?
(A) 20
(B) 15
(C) 7
(D) 3
(16) which of the following is not a prime number?
(A) 2
$\sqrt{5}$ (B) 5
(C) 7
(ㅁ) 9
(17) The G.C.F of 3 and 5 is
(A) 1
(B) 3
(C) 5
(D) 15
(18) The L.C.M of 3 and 5 is $\qquad$
(A) 1
(B) 3
(C) 5
(D) 15
(19) The G.C.F of 6 and 12 is
(A) 1
(B) 6
(C) 12
(D) 72
(20) The L.C.M of 6 and 12 is $\qquad$
(A) 1
(B) 6
(C) 12
(D) 72
(21) The G.C.F of 10 and 15 is $\qquad$
(A) 10
(B) 15
(c) 5
(D) 30
(22) The G.C.F of 10 and 15 is $\qquad$
(A) 10
(B) 15
(C) 5
(D) 30
(23) In the opposite Venn diagram, the G.C.F is
(A) 1
(B) 2
(C) 10
(D) 30

(24) In the opposite Venn diagram, the L.C.M is
(A) 1
(B) 2
(C) 10
(D) 30
(25) In the opposite Venn diagram, the G.C.F is
(A) 1
(B) 2
(c) 7
(D) 14

(26) In the opposite Venn diagram, the L.C.M is
(A) 1
(B) 2
(c) 7
(D) 14

(27) from the opposite Venn diagram G.C.F $=$
(A) 6 $\square$
(C) 42
(D) 30

(28) from the opposite Venn diagram L.C.M $=$.............
(A) 6
(B) 210
(C) 42
(D) 30
(29) the G.C.F of two relatively prime numbers is $\qquad$
(A) 0
(B) 1
© 2
() 3
(30) which of the following are relatively prime numbers?
(A) 2 and 10
(B) 4 and 9
© 4 and 6
() 8 and 6
(31) $\mathbf{3 5}+42=$ $\qquad$ $(5+6)$
(A) 35
(B) 30
© 6
© 7
(32) $16+24=8(2+$ $\qquad$
(A) 24
(B) 16
(33) $8+24=8(-+3)$
© 2
© 3
(A) 1
( $+$
(34) $10+45=5$
(A) 10,40
(B) 2
-)
(B) 5,40
© 3
(0)24
(35) $\frac{2}{5}+\frac{3}{10}=\cdots$
(A) $\frac{5}{15}$

54
(B) $\frac{7}{10}$
(C) $\frac{5}{10}$
(ㄱ) $\frac{1}{2}$
(36) $\frac{3}{4}-\frac{5}{8}=\cdots$
(A) $\frac{1}{4}$
(B) $\frac{1}{8}$
(구
(고 $\frac{5}{8}$
(37) $5 \frac{1}{2}+3 \frac{1}{5}=. .$.
(A) $8 \frac{2}{7}$
(8) $8 \frac{7}{10}$
© $8 \frac{1}{2}$
(2) $8 \frac{2}{5}$
(38) $2 \frac{1}{4}-1 \frac{1}{2}=\cdots$
(A) $1 \frac{1}{2}$
(ㄷ) $\frac{3}{4}$
(c) $1 \frac{3}{4}$
(고 $\frac{4}{3}$
(39) which is an integer? $\qquad$
(A) -0.2
(B) $\frac{1}{2}$
© -10
() $3 \frac{1}{2}$
(40) which of the following numbers is an integer?
(A) $-\frac{24}{5}$
(B) $\frac{4}{8}$
(c) $\frac{15}{5}$
(0) 3.2
(41) the smallest counting number is
(A) 0
(B) 1
(c) -1
(ㄱ) -10
(42) the smallest natural number is
(A) 0
(B) 1
(c) -1
(0) -10
(43) the greatest negative integer is
(4) -2
(8)-1
© 0
© $-[-1]$
(44) the greatest number from the following is
(A) -2
(B) -1
(c) -10
(0) -11
(45) the greatest non-positive integer is
(A) 1
$\sqrt{64}$
(B) 0
(c) -1
(ㅁ 2
(46) the smallest non-negative integer is
(A) 1
(B) 0
(c) -1
(0) - $[-1]$
(47) The number $\qquad$ is neither positive nor negative.
(A) 1
(B) 0
(c) -1
© 2
(48) the integer which just next -5 is $\qquad$
(A) -3
(B) -4
© - 5
(D) - 6
(49) the integer which just before -1 is $\qquad$
(A) -2
(B) 0
© 1
( 2
(50) Each number in the set of integers is called
(A) element
(B) set
© subset
(D) not subset
(51) the additive inverse of -2 is $\qquad$
(A) -2
(B) 2
(C) 0
(ㄷ) 4
(52) the opposite of 5 is
(A) 5
(B) -5
(c) 0
() -7
(53) the opposite of -5 is
(A) 5
(B) -5
(C) 0
(D) -7
(54) the opposite of $-[-5]$ is $\qquad$
(A) 5
(B) -5
© 0
(D) -7
(55) the opposite of the opposite of 5 is
(A) -5
(B) $-[-5]$
(C) 0
(D) 10
(56) in the opposite number line, the integer $A$ is
(A) -1
(B) -2

(C) -3
(D) -4
(57) which of the following is nearest to zero?
(A) -4
(B) 4
(C) -3
(D) 2
(58) $-5-\square$ 3
(A) $>$
(B) $<$
$\subset=[\wedge / A M /$
(59) -2 $\square$ $-7$
(A) $>$
(B) $<$
(C) $=$
(60) -3

$$
\square-[-3]
$$

(A) $>$
(B) $<$
(c) $=$
(61) All the following numbers are rational except $\qquad$
(A) 0
(B) 5
(C) $\frac{1}{7}$
(ㅁ) $\frac{4}{0}$
(62) All the following numbers are rational except
(A) 0
(B) $\frac{2}{7}$
(ᄃ) $\frac{1}{7}$
(ㄷ) $\frac{4}{2-2}$
(63) the best subset of the number 1 is
(A) counting number

(B) natural number
(c) integer
(D) rational number
(64) the best subset of the number 0 is
(A) counting number ${ }^{-1}$
(B) natural number
(c) integer
(D) rational number
(65) The best subset of the number -5 is
(A) counting number
(B) natural number
(C) integer
(D) rational nůmber
(66) The best subset of the number 4.854 is $\qquad$
(A) counting number
(B) natural number
(c) integer
(D) rational number
(67) - 4 $\qquad$ set of counting numbers.
(A) belongs to
(B) does not belong to
(C) is a subset of
$\square 5$
(D) is not a subset of
(68) the opposite of -5 $\qquad$ set of natural numbers.
(A) belongs to
(B) does not belong to
(C) is a subset of
(D) is not a subset of
(69) - 2.5 $\qquad$ set of integers.
(A) belongs to
(B) does not belong to
(C) is a subset of
(D) is not a subset of
(70) set of integers $\qquad$ set of rational numbers.
(A) belongs to
(B) does not belong to
(C) is a subset of
(D) is not a subset of
(71) set of natural $\qquad$ set of counting numbers.
(A) belongs to
(C) is a subset of


(B) does not belong to
(D) is not a subset of
(72) set of counting
............. set of integers.
(A) belongs to
(C) is a subset of
(B) does not belong to
(73) the number 5 in the form $\frac{a}{b}$ is
(A) $\frac{1}{5}$
(B) $\frac{5}{1}$
(C) $-\frac{15}{10}$
(D) 0.5
(74) the number $2 \frac{3}{5}$ in the form $\frac{a}{b}$ is $\qquad$
(A) $\frac{23}{5}$
(B) $\frac{5}{0}$
(C) $\frac{13}{5}$
(D) 253
(75) the number -1.5 in the form $\frac{a}{b}$ is
(A) $-\frac{1}{5}$

(B) $-\frac{5}{1}$
(C) $-\frac{15}{10}$
(D) $-5 \frac{1}{10}$
(76)

(A) $>$
(B) $<$
(C) $=$
(77) $-\frac{1}{4}$
$\square-\frac{2}{9}$
(A) $>$
(B) $<$
(c) $=$
(78) 0.7 $\square$ 0.65
(A) $>$
(B) $<$
(c) $=$
(79) $\frac{2}{8}$ $\square$ 0.5
(A) $>$
(B) $<$
(c) $=$
(80) the greatest number from the following is
(A) $\frac{1}{2}$
(B) $\frac{1}{3}$
(C) $\frac{1}{4}$
(D) $\frac{1}{12}$
(81) the smallest number from the following is
(A) 0.11
(B) 0.3
(C) $\frac{1}{2}$
(D) 0.15
(82) $\qquad$ is lying between 3.1 and 3.2
(A) 3.15
(B) 3.21
(C) 3.20
(D) 3.22
(83) the absolute values of 5 is
(A) -5
(B) 5
(C) 0.5
(D) 0.125
(84) the absolute values of $-\frac{1}{2}$ is
(A) $-\frac{1}{2}$
(B) $\frac{1}{2}$
(C) $-\frac{3}{2}$
(D) $3 \frac{1}{2}$
(85) the opposite of $\left|-\frac{1}{2}\right|$ is $\qquad$
(A) $-\frac{1}{2}$
(B) $\frac{1}{2}$
(C) $-\frac{3}{2}$
(D) $3 \frac{1}{2}$
(86) the absolute value of the opposites of $-2 \frac{1}{5}$ is
(A) $4 \frac{2}{5}$
(B) 0
(C) $-2 \frac{1}{5}$
(D) $2 \frac{1}{5}$
(87) the absolute values of opposites are $\qquad$
(A) equal
(B) different
(C) negative
(ㅁ) other
(88) $|2| \times|-2|=$ $\qquad$
(A) 0
(B) 4
(C) -4
(D) -1
(89) $|-10|+|-2|$ $\square$ $|20|-|-10|$
(A) $>$
(B) $<$
(c) $=$
(56) $|-7|>$ $\qquad$
(A) $|-6|$
(B) $|-7|$
(C) $|-8|$
(ㄷ) $|-9|$
(90) which of the following is an algebraic expression?
(A) $44-3+4$
(B) $3+7-0$
(C) $15 a-32$
(D) $2(3+14)$
(91) which of the following is a numeric expression?
(A) $46 z-25$
(B) $3 x+7-0$
(C) $15 a+2 x$
(D) $2(3+14)$
(92) The constant in the expression $2 x+5$ is
(A) 2
$\sqrt{5 \cdot(B) 2 x}$
(C) $2 x+5$
(D) 5
(93) The coefficient in the expression $2 x+5$ is $\qquad$
(A) 2
(B) $2 x$
(C) $2 x+5$
(D) 5
(94) The constant in the algebraic expression $5+3 y+2 x+1$ are
(A) $5,3,2,1$
(B) 3,2
(C) $3,2,1$
(D) 5,1
(95) The coefficients in the algebraic expression $5+3 y+2 x+1$ are
(A) $5,3,2,1$
(B) 3,2
(C) $3,2,1$
(D) 5,1
(96) Which of the following are like terms?
(A) 25,52
(B) $2 b, 2 c$
(c) $a b, a C$
(D) $n, m$
(97) The number of terms of the expression: $5-2 m-3 m+4$ is.. terms.
(A) 5
(B) -2
(c) -3
(0) 4
(98) the number of like terms in the expression $3+2 x+5$ is $\qquad$
(A) 1
(B2
© 3
(0) 4
(99) $2+3[$ $\qquad$ ] +5 , complete to get a numeric expression.
(A) $a$
(B) $k$
(c) $30 \div 5$
(ㄷ) $b+c$
(100) we subtract 5 from the number $x$, we get
(4) $5 x$
(B) 5-x
(c) $x-5$
(ㄷ $x+5$
(101) Three times a number less two is
(A) $3 x+2$
(B) $3 x-2$
© $2 x 3 x$
(ㄷ) $\frac{3 x}{2}$
(102) Three times a number less than two is
(A) $2+3 x$
(B) $3 x-2$
© $2 x 3 x$
(0) $2-3 x$
(103) Subtracting 3 from double a number
(A) $n-3$
(B) $2 n-3$
() $3 n+2$
(0) $5 n$
(104) Twice the difference of a number and 5 is
(A) $2 y+5$
(B) $2 y-5$
© $2(y+5)$
(ㅇ) $2(y-5)$
(105) The algebraic expression "Twelve less than three groups of $y$ " is. -----
(A) $12-3 y$
(B) $3 y-12$
(c) $y-12$
(0) $12-y$
(106) Laila saved n L.E. and her mother gave her 5 L.E., she will have ... L.E.
(A) $n-5$
(B) $n+5$
© $5 n$
(ㄷ) $5-n$

## 2 complete

(1) $8,529 \div 25=341 \mathrm{R} \ldots \ldots$
(2) The divisor in the equation: $16,692 \div 52=321$ is $\qquad$
(3) The smallest prime number is $\qquad$
(4) The smallest odd prime number is
(5) The only even prime number is
(6) The common factor of all numbers is
(7) The common multiple of all numbers is .............
(8) The G.C.F of 5 and 7 is
(9) The L.C.M of 5 and 7 is
(10) The G.C.F of 4 and 8 is

(11) The L.C.M of 4 and 8 is
$\qquad$
$\qquad$
(12) The G.C.F of 6 and 8 is $\qquad$
(13) In the opposite Venn diagram , the G.C.F is $\qquad$

,

## 3

## 2

 , the L.C.M is $\qquad$

(15) In the opposite Venn diagram
, the G.C.F is

(16) In the opposite Venn diagram, the , the L.C.M is

(17) The G.C.F of two relatively prime numbers is
(18) $8(5+4)=40+$
(19) $18+9=9$ ( $\qquad$
(20) $5(2+\ldots)=10+35$
(21) 9 $\ldots[5+2]=15+6$

(23) $\frac{1}{5}+\frac{1}{3}=$
(24) $\frac{3}{7}+\frac{1}{6}=\ldots \ldots$
(25) $\frac{1}{4}+\frac{1}{12}=\ldots \ldots$
(26) $\frac{5}{6}-\frac{7}{10}=\ldots \ldots$

(27) $\frac{5}{6}-\frac{3}{8}=$ $\qquad$
(28) $10 \frac{1}{2}-5 \frac{1}{3}=\ldots \ldots$
(29) Each number in the set of integers is called $\qquad$
(30) The smallest counting number is $\qquad$
(31) The smallest natural number is $\qquad$
(32) The smallest positive integer number is $\qquad$
(33) The greatest negative integer is
(34) The greatest non-positive integer is $\qquad$
(35) The smallest non-negative integer is $\qquad$
(36) The number ............ is neither positive nor negative.
(37) The integer which just next - 1 is
(38) The integer which just before - 1 is $\qquad$
(39) The integers between -3 and 2 are
(40) The number of integers between -3 and 2 is
(41) The opposite of 3 is $\qquad$
(42) The opposite of -3 is $\qquad$
(43) The opposite of zero is $\qquad$
(44) The distance between the opposite of 4 and 0 on the number line equals $\qquad$ units.
(45) The distance between the number 2 and its opposite on the number line equals $\qquad$ units.
(46) The best subset of the number 25 is $\qquad$
(47) The best subset of the number 0 is $\qquad$
(48) The best subset of the number - 1 is $\qquad$
(49) The best subset of the number - 1.5 is $\qquad$
(50) $|-7|=$ $\qquad$
(51) $|0|=$ $\qquad$

(52) $|-3|+|2|=$ $\qquad$
(53) $|-3| \times|-5|=$

(54) $|-2| \times|0|=$. $\qquad$
(55) positive integer $\square$ negative integer (56) zero $\quad \square$ negative integer (57) zero $\square$ positive integer
(58) $3 \square-7$
(59) -12 $\square$
(60) 2.5 $\square$ 2.47
(61) The additive invers of 5

$$
\square \quad-5
$$

(62) $|-3|$ $\square$ $|-1|$
(63) $|-1|$ $\square$ $=[-1]$
(64) $|-5|$


2
(65) $|-2.71|$ $\square$ 2.7
(66) $|-10|+|-2| \quad \square \quad|20|-|-10|$
(67) The opposite of $\left|-\frac{1}{2}\right|$ is $\qquad$
(68) The constant in the expression $3 y+2 x-5$ is $\qquad$
(69) The constant in the expression $2 x+y$ is $\qquad$
(70) The coefficient in the expression $3 y+2 x-5$ is $\qquad$
(71) The coefficient in the expression $1.5+4-5$ is $\qquad$
(72) The verbal expression from " $x+2$ " is $\qquad$
(73) The verbal expression from "y-5" is $\qquad$
(74) The verbal expression from " 5 x " is $\qquad$
(75) The verbal expression from " $4-3 n$ " is
(76) The algebraic expression for "a number less 7" is
(77) The algebraic expression for "a number less than 7"is $\qquad$
(78) The algebraic expression for " Subtract 3 from the number $y$ "is $\qquad$
(79) The algebraic expression for


Four times the sum of a number and seven $\qquad$
(80) The algebraic expression for
"Add 5 to the doubte of the number x " is $\qquad$
ENG. ESLAM EMAM
$\qquad$

## 3 Answer the following questions

(1) Using the following Venn diagram, complete
a- The two numbers represented in the Venn diagram are $\qquad$
b- The G.C.F of the two numbers is $\qquad$
c- The L.C.M of the two numbers is

d- Are the two numbers relatively prime numbers? (Yes - No)

(2) Using the following Venn diagram, complete
a- The two numbers represented in the Venn diagram are $\qquad$ b- The G.C.F of the two numbers is $\qquad$
c- The L.C.M of the two numbers is $\qquad$

d- Are the two numbers relatively prime numbers? (Yes - No)
(3) Using the following Venn diagram, complete
$\qquad$


The LCM $=$ $\qquad$
The expression = $\qquad$ ( ....... + $\qquad$
(4) Use Venn diagram to find G.C.F and L.C.M of:

15 and 10


(5) Order the given set of numbers from least to greatest.

$$
2.1,1.4,-3 \frac{1}{4},-1 \frac{7}{8}, 2 \frac{1}{2}
$$


(6) Ahmed has 10 L.E. in her money box, he will save 5 L.E. daily. a- What algebraic expression represent this situation?
b- How much money in the money box after 3 days?
(7) Find two rational numbers lies between: $\frac{3}{4}$ and $\frac{4}{5}$
$\qquad$
$\qquad$
$\qquad$

(8) Find two rational numbers lies between: -1.2 and $\mathbf{- 1 . 3}$

(9) Represent the numbers on the number line.

(10) A factory produces 1,645 pieces of cloth weekly.

How many pieces did the factory produce daily?

$\qquad$
$\qquad$
$\qquad$

## 1 Choose the correct answer

(1) In the equation: $378 \div 25=15 \mathrm{R} 3$, the dividend is $\qquad$
(A) 378
(B) 25
(C) 15
(D) 3
(2) In the equation: $544 \div 12=45 \mathrm{R} 4$, the divisor is
(A) 544
(B) 12
(C) 45
(D) 4
(3) In the equation: $5,314 \div 15=354 \mathrm{R} 4$, the quotient is $\qquad$
(A) 5,314
(B) 15
(C) 354
(D) 4
(4) In the equation: $1,860 \div 32=58 \mathrm{R} 4$, the remainder is
(A) 1,860
(B) 32
(C) 58
(D) 4
(5) In the equation: $2,150 \div 25=86$, the remainder is
(A) 0
(B) 2,150
(C) 25
(D) 86
(6) $820 \div 24=34 R$ $\qquad$
(A) 0
(B) 2
(C) 4
(D) 6
(7) $6,280 \div 25=$ $\qquad$
(A) $215 R 5$
(B) 251 R5
(C) 251
(D) 255 R1
(8) A school has 1,440 students which distributed between 24 classes equally. How many students are in each class?
(A) 40
(B) 50
(C) 60
(D) 70
(9) Eslam saves 210 L.E weekly. How much did he save daily?
(A) 10
(B) 20
(C) 30
(D) 40
(10) The smallest prime number is $\qquad$
(A) 0
(B) 1
(C) 2
(D) 3
(11) The smallest odd prime number is $\qquad$
(A) 0
(B) 1
(C) 2
(D) 3
(12) The only even prime number is
(A) 0
(B) 1
(C) 2
(D) 3
(13) The common factor of all numbers is
(A) 0
(B) 1
(C) 2
(D) 3
(14) The common multiple of all numbers is
(A) 0
(B) 1
(C) 2
(D) 3
(15) which of the following is a prime number?
(A) 20
(B) 15
(C) 7
(D) 9
(16) which of the following is not a prime number?
(A) 2
(B) 5
(C) 7

$$
\text { (ㅁ) } 9
$$

(17) The G.C.F of 3 and 5 is $\qquad$
(A) 1
(B) 3
(C) 5
(D) 15
(18) The L.C.M of 3 and 5 is $\qquad$
(A) 1
(B) 3
(c) 5
(D) 15
(19) The G.C.F of 6 and 12 is
(A) 1
(B) 6
(C) 12
(D) 72
(20) The L.C.M of 6 and 12 is $\qquad$
(A) 1
(B) 6
(C) 12
(D) 72
(21) The G.C.F of 10 and 15 is $\qquad$
(A) 10
(B) 15
© 5
(ㄷ) 30
(22) The G.C.F of 10 and 15 is
(A) 10
(B) 15
© 5
(ㄷ) 30
(23) In the opposite Venn diagram, the G.C.F is
(A) 1
(c) 10
(D) 30

(24) In the opposite Venn diagram, the L.C.M is
(A) 1
(8) 2
(c) 10
(ㄷ) 30

(25) In the opposite Venn diagram, the G.C.F is $\qquad$
(A) 1
(B) 2
© 7
(ㅁ) 14

(26) In the opposite Venn diagram, the L.C.M is
(A) 1
(B) 2
© 7
(ㄷ) 14

(27) from the opposite Venn diagram G.C.F $=$ $\qquad$
(A) 6
(B) 210
© 42
(ㅁ) 30

(28) from the opposite Venn diagram L.C.M $=$.............
(A) 6
(B) 210
(c) 42
(ㄷ) 30
(29) the G.C.F of two relatively prime numbers is $\qquad$
(A) 0
(B) 1
© 2
(0) 3
(30) which of the following are relatively prime numbers?
(A) 2 and 10
(B) 4 and 9
© 4 and 6
(2) 8 and 6
(31) $\mathbf{3 5}+42=$ $\qquad$ $(5+6)$
(A) 35
(B) 30
© 6
(0) 7
(32) $16+24=8(2+$ $\qquad$
(A) 24
(B) 16
© 2
© 3
(33) $8+24=8(\ldots+3)$
(A) 1
(B) 2
(C) 3
(D) 24
(34) $10+45=5($ $\qquad$ $+$ $\qquad$
(A) 10,40
(B) 5,40
(c) 9,5
(2) 2,9
(35) $\frac{2}{5}+\frac{3}{10}=\cdots$
(A) $\frac{5}{15}$
(B) $\frac{7}{10}$
(©) $\frac{5}{10}$
(ㄱ) $\frac{1}{2}$
(36) $\frac{3}{4}-\frac{5}{8}=\cdots$
(A) $\frac{1}{4}$
(®) $\frac{1}{8}$
© $\frac{3}{8}$
(ㄱ) $\frac{5}{8}$
(37) $5 \frac{1}{2}+3 \frac{1}{5}=\ldots$
(A) $8 \frac{2}{7}$
(B) $8 \frac{7}{10}$
(c) $8 \frac{1}{2}$
(2) $8 \frac{2}{5}$
(38) $2 \frac{1}{4}-1 \frac{1}{2}=\cdots$
(A) $1 \frac{1}{2}$
(B) $\frac{3}{4}$
(c) $1 \frac{3}{4}$
(ㄱ) $\frac{4}{3}$
(39) which is an integer? $\qquad$
(A) -0.2
(B) $\frac{1}{2}$
© -10
(0) $3 \frac{1}{2}$
(40) which of the following numbers is an integer?
(A) $-\frac{24}{5}$
(®) $\frac{4}{8}$
© $\frac{15}{5}$
(0) 3.2
(41) the smallest counting number is
(A) 0
(B) 1
(c) -1
(0) -10
(42) the smallest natural number is
(A) 0
(B) 1
(c) -1
(D) -10
(43) the greatest negative integer is
(A) -2
(B)-1
© 0
() $-[-1]$
(44) the greatest number from the following is
(A) -2
(B) -1
(C) -10
(ㄷ) -11
(45) the greatest non-positive integer is
(A) 1
(B) 0
(C) -1
(D) 2
(46) the smallest non-negative integer is
(A) 1
(B) 0
(C) -1
(D) $-[-1]$
(47) The number $\qquad$ is neither positive nor negative.
(A) 1
(B) 0
(C) -1
(D) 2
(48) the integer which just next -5 is
(A) -3
(B) -4
(C) -5
(D) -6
(49) the integer which just before -1 is $\qquad$
(A) -2
(B) 0
(C) 1
(ㅁ) 2
(50) Each number in the set of integers is called
(A) element
(B) set
© subset
(D) not subset
(51) the additive inverse of -2 is
(A) -2
(B) 2
(C) 0
(D) 4
(52) the opposite of 5 is
(A) 5
(B) -5
(C) 0
() -7
(53) the opposite of -5 is
(A) 5
(B) -5
(C) 0
() -7
(54) the opposite of $-[-5]$ is
(A) 5
(B) -5
(C) 0
(D) -7
(55) the opposite of the opposite of 5 is
(A) -5
(B) $-[-5]$
(C) 0
(D) 10
(56) in the opposite number line, the integer $A$ is
(A) -1
(B) -2

(C) -3
(ㄷ) -4
(57) which of the following is nearest to zero?
(A) -4
(B) 4
(C) -3
(ㄷ) 2
(58) -5


3
© $=$
(59) -2
$\square$
(B) $<$
(A) $>$
$-7$
(B) $<$
(C) $=$
(60) -3 $\square$ $-[-3]$
(A) $>$
(B) $<$
(C) $=$
(61) All the following numbers are rational except $\qquad$
(A) 0
(B) 5
(C) $\frac{1}{7}$
(ㄷ) $\frac{4}{0}$
(62) All the following numbers are rational except $\qquad$
(A) 0
(B) $\frac{2}{7}$
(C) $\frac{1}{7}$
(ㄷ) $\frac{4}{2-2}$
(63) the best subset of the number 1 is $\qquad$
(A) counting number
© integer
(64) the best subset of the number 0 is
(A) counting number
(B) natural number
(C) integer
(65) The best subset of the number -5 is
(D) rational number
(A) counting number
(B) natural number
(C) integer
(D) rational number
(66) The best subset of the number 4.854 is
(A) counting number
(B) natural number
(C) integer
(D) rational number
(67) - 4 $\qquad$ set of counting numbers.
(A) belongs to
(B) does not belong to
(C) is a subset of
(D) is not a subset of
(68) the opposite of -5 $\qquad$ set of natural numbers.

## (A) belongs to

(B) does not belong to
(C) is a subset of
(D) is not a subset of
(69) - 2.5 $\qquad$ set of integers.
(A) belongs to
(B) does not belong to
(C) is a subset of
(D) is not a subset of
(70) set of integers $\qquad$ set of rational numbers.
(A) belongs to
(B) does not belong to
(C) is a subset of
(D) is not a subset of
(71) set of natural ............. set of counting numbers.
(A) belongs to
(B) does not belong to
(C) is a subset of
(D) is not a subset of
(72) set of counting ............. set of integers.
(A) belongs to
(B) does not belong to
(C) is a subset of
(D) is not a subset of
(73) the number 5 in the form $\frac{a}{b}$ is
(A) $\frac{1}{5}$
(B) $\frac{5}{1}$
(C) $-\frac{15}{10}$
(D) 0.5
(74) the number $2 \frac{3}{5}$ in the form $\frac{a}{b}$ is $\qquad$
(A) $\frac{23}{5}$
(B) $\frac{5}{0}$
(C) $\frac{13}{5}$
(D) 253
(75) the number -1.5 in the form $\frac{a}{b}$ is .............
(A) $-\frac{1}{5}$
(B) $-\frac{5}{1}$
(C) $-\frac{15}{10}$
(D) $-5 \frac{1}{10}$
(76) $\square$ $\frac{2}{7}$
(A) $>$
(B) $<$
(C) $=$
(77) $-\frac{1}{4}$
$\square-\frac{2}{9}$
(A) $>$
(B) $<$
(C) $=$
(78) 0.7 $\square$ 0.65
(A) $>$
(B) $<$
(C) $=$
(79) $\frac{2}{8}$ $\square$ 0.5
(A) $>$
(B) $<$
(C) $=$
$(80)$ the greatest number from the following is $\qquad$
(A) $\frac{1}{2}$
(B) $\frac{1}{3}$
(C) $\frac{1}{4}$
(D) $\frac{1}{12}$
(81) the smallest number from the following is
(A) 0.11
(B) 0.3
(ᄃ) $\frac{1}{2}$
(D) 0.15
(82) ............. is lying between 3.1 and 3.2
(A) 3.15
(B) 3.21
(C) 3.20
(D) 3.22
(83) the absolute values of 5 is
(A) -5
(B) 5
(C) 0.5
(D) 0.125
(84) the absolute values of $-\frac{1}{2}$ is
(A) $-\frac{1}{2}$
(B) $\frac{1}{2}$
(C) $-\frac{3}{2}$
(ㄷ) $3 \frac{1}{2}$
(85) the opposite of $\left|-\frac{1}{2}\right|$ is $\qquad$
(A) $-\frac{1}{2}$
(B) $\frac{1}{2}$
(C) $-\frac{3}{2}$
() $3 \frac{1}{2}$
(86) the absolute value of the opposites of $-2 \frac{1}{5}$ is $\qquad$
(A) $4 \frac{2}{5}$
(B) 0
(C) $-2 \frac{1}{5}$
(D) $2 \frac{1}{5}$
(87) the absolute values of opposites are $\qquad$
(A) equal
(B) different
(C) negative
(D) other
(88) $|2| \times|-2|=$ $\qquad$
(A) 0
(B) 4
(c)-4
(0)-1
(89) $|-10|+|-2| \square|20|-|-10|$
(A) $>$
(B) $<$
© =
(56) $|-7|>$ $\qquad$
(A) $|-6|$
(ㄹ) |-7|
© |-8|
(0) $-9 \mid$
(90) which of the following is an algebraic expression?
(A) $44-3+4$
(B) $3+7-0$
(C) $15 a-32$
() $2(3+14)$
(91) which of the following is a numeric expression?
(A) $46 z-25$
(B) $3 x+7-0$
(C) $15 a+2 x$
(D) $2(3+14)$
(92) The constant in the expression $2 x+5$ is $\qquad$
(A) 2
(B) $2 x$
(C) $2 x+5$
(ㄷ) 5
(93) The coefficient in the expression $2 x+5$ is $\qquad$
(A) 2
(B) $2 x$
(C) $2 x+5$
(D) 5
(94) The constant in the algebraic expression $5+3 y+2 x+1$ are
(A) $5,3,2,1$
(B) 3,2
(C) $3,2,1$
(ㄷ) 5,1
(95) The coefficients in the algebraic expression $5+3 y+2 x+1$ are
(A) $5,3,2,1$
(B) 3,2
(C) $3,2,1$
(D) 5,1
(96) Which of the following are like terms?
(A) 25,52
(B) $2 b, 2 c$
(C) $a b, a C$
(D) $n, m$
(97) The number of terms of the expression: $5-2 m-3 m+4$ is $\ldots$.. terms.
(A) 5
(B) -2
(C) -3
(D) 4
(98) the number of like terms in the expression $3+2 x+5$ is
(A) 1
(B2
(C) 3
(D) 4
(99) $2+3[$ $\qquad$ ] +5 , complete to get a numeric expression.
(A) $a$
(B) $k$
(C) $30 \div 5$
(D) $b+c$
(100) we subtract 5 from the number $x$, we get
(A) $5 x$
(B) $5-x$
(c) $x-5$
(D) $x+5$
(101) Three times a number less two is
(A) $3 x+2$
(B) $3 x-2$
(C) $2 x 3 x$
(D) $\frac{3 x}{2}$
(102) Three times a number less than two is
(A) $2+3 x$
(B) $3 x-2$
(C) $2 x 3 x$
(D) $2-3 x$
(103) Subtracting 3 from double a number $\qquad$
(A) $n-3$
(B) $2 n-3$
(C) $3 n+2$
(D) $5 n$
(104) Twice the difference of a number and 5 is
(A) $2 y+5$
(B) $2 y-5$
(C) $2(y+5)$
(D) $2(y-5)$
(105) The algebraic expression "Twelve less than three groups of $y$ " is. -----
(A) $12-3 y$
(B) $3 y-12$
(c) $y-12$
(D) $12-y$
(106) Laila saved $n$ L.E. and her mother gave her 5 L.E., she will have ... L.E.
(A) $n-5$
(B) $n+5$
(C) $5 n$
(D) $5-n$

## 2 complete

(1) $8,529 \div 25=341 \mathrm{R} . .4$
(2) The divisor in the equation: $16,692 \div 52=321$ is ....72
(3) The smallest prime number is ... $2 \ldots .$.
(4) The smallest odd prime number is ... 3
(5) The only even prime number is ... $\mathbb{Z}$....
(6) The common factor of all numbers is ..... $1 . .$.
(7) The common multiple of all numbers is

(8) The G.C.F of 5 and 7 is .... 1 ...
(9) The L.C.M of 5 and 7 is ...3....
(10) The G.C.F of 4 and 8 is ...........
(11) The L.C.M of 4 and 8 is ..... 8 ....
(12) The G.C.F of 6 and 8 is .... $2 \ldots$
(13) In the opposite Venn diagram , the G.C.F is ..... $2 \ldots$

(14) In the opposite Venn diagram , the L.C.M is ..6.0...

(15) In the opposite Venn diagram , the G.C.F is ....

(16) In the opposite Venn diagram, the , the L.C.M is .... 6
(17) The G.C.F of two relatively prime numbers is ... 1
(18) $8(5+4)=40+32$
(19) $18+9=9(2+1)$
(20) $5(2+\underline{7})=10+35$
(21) $9(1+2)=9+18$
(22) $3[5+2]=15+6$
(23) $\frac{1}{5}+\frac{1}{3}=\frac{8}{25}$
(24) $\frac{3}{7}+\frac{1}{6}=\frac{25}{42}$
(25) $\frac{1}{4}+\frac{1}{12}=\frac{4}{12} \div 4 \frac{1}{3}$
(26) $\frac{5}{6}-\frac{7}{10}=\frac{4 \div 2}{30 \div 2}=\frac{2}{15}$
(27) $\frac{5}{6}-\frac{3}{8}=\frac{11}{24}$
(28)
$10 \frac{1}{2}-5 \frac{1}{3}=.5 \cdot \frac{1}{6}$
(29) Each number in the set of integers is called ...e..|ement
(30) The smallest counting number is ... $1 \ldots$
(31) The smallest natural number is ......
(32) The smallest positive integer number is ...1......
(33) The greatest negative integer is ............
(34) The greatest non-positive integer is 0
(35) The smallest non-negative integer is ...
(36) The number ....
(37) The integer which just next - 1 is $\qquad$
(38) The integer which just before -1 is ......... 2
(39) The integers between -3 and 2 are ..... 2 - 1 o 1
(40) The number of integers between -3 and 2 is ...e..... Integers
(41) The opposite of 3 is ........ 3
(42) The opposite of -3 is ...... 3
(43) The opposite of zero is .. ...
(44) The distance between the opposite of 4 and 0 on the number line equals ......... units.
(45) The distance between the number 2 and its opposite on the number line equals ........... units.
(46) The best subset of the number 25 is
(47) The best subset of the number 0 is ..N.a..) $\sim$ al
(48) The best subset of the number - 1 is
(49) The best subset of the number - 1.5 is .......tiond
(50) $|-7|=\ldots 7$
(51) $|0|=\ldots$...
(52) $|-3|+|2|=. .5 \ldots$
(53) $|-3| \times|-5|=1.5$
(54) $|-2| \times|0|=$ $\qquad$
(55) positive integer

7 negative integer
$\begin{array}{llr}\mathbf{( 5 6 )} & \text { zero } \\ \text { (57) } & \text { zero } & \\ \mathbf{( 5 8 )} & 3 & \square \\ \mathbf{~} & -7\end{array}$
(59) $-12 \quad \measuredangle \sqrt{-4}$
(60) $2.5 \quad>\quad 2.47$
(61) The additive invers of $5-\equiv-5$
(62) $|-3|$
$>\quad|-1|$
(63) $|-1|$
$=\quad-[-1]$
(64) $|-5|$


2
(65) $|-2.71|$

7
2.7
(66) $|-10|+|-2| \quad>\quad|20|-|-10|$
(67) The opposite of $\left|-\frac{1}{2}\right|$ is ....... $\frac{1}{2}$
(68) The constant in the expression $3 y+2 x-5$ is ........5.
(69) The constant in the expression $2 x+y$ is none
(70) The coefficient in the expression $3 y+2 x-5$ is ..3 $6 \ldots 2$
(71) The coefficient in the expression $1.5+4-5$ is none
(72) The verbal expression from " $x+2$ " is .. $x$...increased by 2
(73) The verbal expression from " $y-5$ " is $x$ decreased $b y 5$
(74) The verbal expression from " $5 x$ " is ........ 5 times $X$
(75) The verbal expression from " $4-3 n$ " is 4 minus 3 times $n$
(76) The algebraic expression for "a number less 7 " is .. $\boldsymbol{X} \ldots . . .7$
(77) The algebraic expression for "a number less than 7 " is .7 .... $X$
(78) The algebraic expression for " Subtract 3 from the number $y$ "is .y... 3
(79) The algebraic expression for

(80) The algebraic expression for

$$
\text { "Add } 5 \text { to the doubte of the number } x \text { " is ....5 } 5+2 X
$$

## 3 Answer the following questions

(1) Using the following Venn diagram, complete
a- The two numbers represented in the Venn diagram are 45 and 35 b- The G.C.F of the two numbers is

c- The L.C.M of the two numbers is

d- Are the two numbers relatively prime numbers? (Yes No)

(2) Using the following Venn diagram, complete
a- The two numbers represented in the Venn diagram are -- 7 - and
b- The G.C.F of the two numbers is

c- The L.C.M of the two numbers is

d- Are the two numbers relatively prime numbers? Yes No)
(3) Using the following Venn diagram, complete
$x=12$
$y=42$

The $G C F=. . .6$


The LCM = ... 84
The expression $=$..6.. (.2. + . 7... $)$
$\qquad$
(4) Use Venn diagram to find G.C.F and L.C.M of: 15 and 10

$$
\begin{aligned}
& 15=3 \times 5 \\
& 10=5 \times 2
\end{aligned}
$$



$$
G c f=5
$$

$$
L C M=30
$$

(5) Order the given set of numbers from least to greatest.
$\qquad$

$$
2.1,1.4,-3 \frac{1}{4},-1 \frac{7}{8}, 2 \frac{1}{2}
$$

$\qquad$
(6) Ahmed has 10 L.E. in her money box, he will save 5 L.E. daily.
a- What algebraic expression represent this situation?
$\qquad$
b- How much money in the money box after 3 days?

$$
10+5 \times 3=25 \mathrm{~L} \cdot \mathrm{E} .
$$

$\qquad$
$\qquad$ 01004041878
(7) Find two rational numbers lies between: $\frac{3}{4}$ and $\frac{4}{5}$

$$
\begin{aligned}
& \frac{15}{20}<\frac{16}{20} \times 10 \quad \text { Two Rational } \\
& \frac{150}{200}<\frac{160}{200} \times 1 \frac{151}{200} \cdot \frac{155}{200}
\end{aligned}
$$

(8) Find two rational numbers lies between: -1.2 and $\mathbf{- 1 . 3}$
$\qquad$

$$
-1.20<-1.30
$$

$\Rightarrow-1.216-1.25$
(9) Represent the numbers on the number line.

(10) A factory produces 1,645 pieces of cloth weekly.

How many pieces did the factory produce daily?

$$
1645 \div 7=235 \text { Pieces }
$$

$\qquad$
$\qquad$
$\qquad$
19 $\qquad$ Eng-Eslam Emam $\qquad$ 01004041878

## October Revision

QUESTION 1 Choose the correct answer.
[1 In the equation : $1,600 \div 25=64$ the quotient is
a 1,600
(b) 25
C 64
d zero
[2 $820 \div 24=34 \mathrm{R}$
(a) 9
(b) 8
C 7
d) 4
[3 $5,262 \div 57=92 R$ $\qquad$
(a) 18
(b) 57
(C) 92
(d) 0
[4 $3,548 \div 23=$ $\qquad$ R 6
(a) 154
(b) 23
C 514
(d) 6
[5 $2525 \div 25=$ $\qquad$
(a) 11
(b) 101
C $\quad 105 \mathrm{R} 1$
(d) 100 R 5
[ 6 Karma saves 455 L.E. weekly. How much did she save daily?
(a) 15
(b) 65
C 3185
(d) 45
[7 If the price of 15 same books is 3,645 L.E. , then the price of each one is $\qquad$ L.E.
a 234
(b) 243
C 324
(d) 423
[ $8 \quad 2,574 \div 7=$
a 376 R 5
(b) 367 R 5
C 367
d 376
[9 In the opposite Venn diagram, the L.C.M is $\qquad$
a 0
(b) 1
C 10
(d) 21


10 In the opposite Venn diagram, the G.C.F is
(a) 1
(b) 6
C 30
(d) 90


11 In the opposite Venn diagram, the G.C.F is $\qquad$
(a) 30
(b) 1
C 90
(d) 6


12 In the opposite Venn diagram, the value of X is
a 5
(b) 6
C 10
d 30


13 $\qquad$ is a multiple of any number.
a 0
(b) 1
C 2
d 3
(14 Which of the following are relatively prime numbers ?
a 3 and 9
(b) 6 and 8
C 5 and 7
d 14 and 15

15 Which of the following are relatively prime numbers?
a 8 and 9
(b) 7 and 14
C) 5 and 10
d 2 and 3
(16 $20+25=$ $\qquad$
(a) $2(0+5)$
(b) $5(2+5)$
C. $5(4+5)$
d $20(0+5)$

17 From the opposite Venn diagram the expression is
a $10(15+10)$
(b) $3(10+5)$
C $5(10+3)$
(d) $10(3+5)$
$18 \quad 8(3+5)=$ $\qquad$
a $24+13$
(b) $3(8+5)$
C $24+40$
(d) $11+13$
[19 $\frac{1}{4}+\frac{2}{4}+\frac{3}{4}+\frac{2}{4}=$ $\qquad$
a 2
(b) 1
C $\frac{7}{8}$
d $\frac{5}{8}$
[20 $\frac{5}{6}-\frac{3}{4}=$
a $\frac{1}{2}$
(b) $\frac{8}{10}$
C $\frac{1}{12}$
d $\frac{1}{24}$

## October Revision

21 The smallest number from the following is
a -51
(b) -11
C 52
d -18

22 The opposite of -5 is $\qquad$
(a)-5
(b) 5
C 0
(d) 10

23 The opposite of the opposite of 2 is
(a) -2
(b) $-(-2)$
C 0
(d) 4

24 The integer which comes just next -1
(a)-2
(b) 0
C 1
(d) 2
[25 The smallest natural number is
(a) -2
(b) 0
C - 1
(d) 1

26 The smallest counting number is
a -1
(b) $\frac{5}{5}$
C 0.1
d $\frac{10}{5}$

27 The smallest non-negative integer is
(a) -2
(b) -1
C 0
(d) 1

28 The greatest negative integer is $\qquad$
(a) -2
(b) -1
C 0
(d) $-(-1)$

29 Which of the following numbers is an integer ?
a $\frac{15}{6}$
(b) $\frac{15}{4}$
C $-\frac{15}{3}$
(d) $-\frac{15}{2}$

30 Which of the following numbers is an integer ?
a $\frac{5}{2}$
(b) $-\frac{4}{8}$
C 2.1
(d) $-\frac{25}{5}$
[31 All the following numbers are rational except
a 0
(b) $\frac{3}{7-7}$
(c) $\frac{5-5}{8}$
(d) $\frac{1}{5-3}$

32 The number -1.2 in the form $\frac{a}{b}$ is
a $-\frac{1}{2}$
(b) $-\frac{2}{1}$
C $-\frac{12}{10}$
d $-2 \frac{1}{10}$

## October Revision

[33 The number $-2 \frac{1}{4}$ in the form $\frac{a}{b}$ is
a $-\frac{4}{9}$
(b) $-\frac{9}{4}$
C $-\frac{7}{4}$
(d) $-\frac{21}{4}$

34 $\qquad$ is lying between 3.14 and 3.2
a 3.15
(b) 3.21
C 3.20
(d) 3.22

35 The number of rational numbers lying between $\frac{1}{4}$ and $-\frac{1}{4}$ is $\qquad$
a 0
(b) 1
C 2
d an infinite numer
[36 The opposite of zero is
(a) -1
(b) 0
C 1
d has no opposite
[37 The additive inverse of $-\left|-\frac{1}{2}\right|$ is
a $-\frac{1}{2}$
(b) 0
C $\frac{1}{2}$
(d) -0.2

38 If $|x|=7$, then $x=$
(a) 7
(b) -7
C 7or-7
d otherwise

39 If $|-11|=x$, then $x=$ $\qquad$
a -11
(b) 11
C 1
(d) -1
[40 $\left|-2 \frac{1}{4}\right| \div\left|\frac{1}{2}\right|$ is
(a) $4 \frac{1}{2}$
(b) 4
C $4 \frac{1}{4}$
(d) $\frac{9}{8}$
[41 $|4|-\left|-2 \frac{1}{3}\right|$ is
a 2
(b) $2 \frac{1}{3}$
C $6 \frac{1}{3}$
(d) $1 \frac{2}{3}$

42 Set of integers subset of set of numbers
a counting
(b) natural
C prime
d rational

43 The number 2.024 belongs to $\qquad$ numbers
a counting
(b) natural
C integer
(d) rational

44 The number of terms of the expression: 5-m-2m+7is $\qquad$
(a)-1
(b) -2
C 4
d 7

45 In the algebraic expression : $-5 x-4+5 y+5$, the two like terms are
a 5 and $5 y$
(b) $-5 x$ and $5 y$
C. -4 and 5
(d) $-5 x$ and 5

46 Which of the following are like terms?
(a) 25,52
(b) ab, bc
(c) $\mathrm{ab}, \mathrm{aq}$
(d) $m, n$

47 The coefficient in the algebraic expression : $7 \mathrm{y}-1$ is $\qquad$
a 7 y
(b) 7
C $\mathrm{y}-1$
(d) - 1

48 The coefficient in the algebraic expression : $2-3 m+1$ is
(a) 2
(b) 3
C 1
(d) -3

49 The coefficients in the algebraic expression : 2-5m-y are $\qquad$
(a) 5 and 1
(b) -5 and 1
C. -5 and -1
(d) 2 and - 5

50 The constants in the algebraic expression: $-3 y-2+3 y+1$ are
a $-3,3$
(b) $3,-2$
(C) 1,-2
d 3,1

51 Twelve less than three groups of $y$.
(a) 12-3y
(b) $3 y-12$
C $y-3(12)$
(d) $12(3)-y$

52 Subtracting three times a number from two.
(a) $3 \mathrm{r}-2$
(b) 2-3r
C $3(2-r)$
(d) $3(r-2)$

53 Twice a number more than 8 .
(a) $2 x+8$
(b) $2(8+x)$
(C) $8+x$
(d) $2 x-8$

54 The best subset of the number 0 is $\qquad$ numbers.
a counting
(b) natural
C integer
d rational

55 The distance between -3 and its opposite on the number line is $\qquad$ unit(s)
a 3
(b) 0
C 6
(d) 12

## October Revision

## QUESTION 2 Complete.

[ 1 The L.C.M of 3 and 5 is
[2 The L.C.M of 6 and 12 is
[3 The G.C.F of 15 and 30 is
[4 The common factor of all numbers is
[5 The common multiple of all numbers is
$[6(3+5)=18+$
$[75 \times 3+5 \times 7=5(\ldots \ldots)$
[ 8 In the opposite Venn diagram, the L.C.M is , and the G.C.F is

[9 $7 \frac{1}{5}+1 \frac{2}{3}=$
(10 $9 \frac{1}{6}-\frac{2}{3}=$
$\left[113-\left|-1 \frac{2}{5}\right|=\right.$
(12 $\left|2 \frac{2}{3}\right| \div\left|-1 \frac{1}{3}\right|=$
[13 $206 \div 8=$
(14) $2424 \div 24=$
[15 $2025 \div 25=$

16 The G.C.F of 8 and 16 is

## October Revision

17 The smallest natural number is

18 The greatest non-positive integer is
[19 The additive inverse of $\left|-2 \frac{2}{5}\right|$ is
20 The opposite of $-(-1)$ is $\qquad$
21 The opposite to zero is $\qquad$
22 The number of integers between -2 and 3 is $\qquad$
[23 $\frac{15}{3} \cdots \quad$ to set of counting numbers. Write "belongs" or "dose not belong"
24 Write the correct sign " $<,=$ or >"
(a) -3 -10
(b) -100 0

C $-(-2)$ $-|-2|$
(d) $-1 \frac{2}{5}$ $-\frac{7}{5}$

25 If $|x|=1$ then $x=$ $\qquad$ or $\qquad$

26 If $|x|=3.03$ then $x=$ $\qquad$ or $\qquad$

27 If $|-3|=x$, then $x=$ $\qquad$

28 If $|-5.3|=x$, then $x=$ $\qquad$

29 The sum of twice a number and 7 is $\qquad$
[30 The verbal expression for " $2 y-2$ " is

## October Revision

Question 3 Essay questions.
1 From the opposite Venn diagram, complete:
(a) The value of $x$ is
c G.C.F is
(b) The value of $y$ is
(d) L.C.M is

2 From the opposite Venn diagram, complete:
(a) The value of $x$ is
C G.C.F is
(b) The value of $y$ is
(d) L.C.M is


The prime factors of $x$

The prime factors of 50

[3 Use the Venn diagram to find: G.C.F and L.C.M of 35 and 42
[4 A factory produces 875 pieces of cloth weekly. How many pieces did the factory produce daily ?
[ 5 A merchant paid 2,000 L.E. to buy 16 boxes of mango. Find the price of each box and if each box contains 5 kg of mango, find the price of each kg .
[ 6 Samir ate $\frac{1}{4}$ of the cake and Seif ate $\frac{1}{3}$ of the same cake. How much of the cake has been eaten ?

## October Revision

[7 Arrange the following from least to greatest.
a $-5,0,-4,4,-9,3$
(b) $5,0,-\frac{7}{2}, \frac{5}{2},-9,-2 \frac{1}{4}$
[8 Arrange the following from greatest to least.
a $-\frac{7}{12},-\frac{7}{2}, 2 \frac{1}{2}$, zero,$\frac{3}{4}$
(b) $\frac{3}{5},-\frac{7}{10},-\frac{5}{4}, 0.4$, zero
[9 Find three rational numbers lies between:
a $\frac{3}{4}$ and $\frac{4}{5}$
(b) 3.2 and 3.23

10 Write the algebraic expression which represents:
Ahmed is x years old now, how old will he be after 6 years?

With My Best Wishes (:)

2024

## 

Question 1 Choose the correct answer.

| 1) c | 12) d | 23) a | 34) a | 45) c |
| :---: | :---: | :---: | :---: | :---: |
| 2) d | 13) b | 24) b | 35) d | 46) a |
| 3) a | 14) d | 25) b | 36) b | 47) b |
| 4) a | 15) a | 26) b | 37) c | 48) d |
| 5) b | 16) c | 27) c | 38) c | 49) c |
| 6) b | 17) d | 28) $b$ | 39) b | 50) c |
| 7) b | 18) c | 29) c | 40) a | 51) b |
| 8) b | 19) a | 30) d | 41) d | 52) b |
| 9) d | 20) c | 31) b | 42) d | 53) a |
| 10) a | 21) a | 32) c | 43) d | 54) b |
| 11) d | 22) b | 33) b | 44) c | 55) c |

## Question 2 Complete.

1) 15
2) 12
3) 15
4) 1
5) 0
6) 30
7) $3+7$
8) 100,10
9) $8 \frac{13}{15}$
10) $8 \frac{1}{2}$
11) $\frac{8}{5}=1 \frac{3}{5}$
12) 2
13) 25 R 6
14) 101
15) 81
16) 8
17) 0
18) 0
19) $-2 \frac{2}{5}$
20) -1
21) 0
22) 4
23) $=5$ belongs
24) a) $>$,
b) < ,
c) $>$
d) $=$
25) -1 or 1
26) -3.03 or 3.03
27) 3
28) 5.3
29) $2 x+7$
30) Twice a number $y$ decreased by 2 (The answer may vary)

## Question 3. Essay questions.

1) a) $x=100$,
b) $y=30$,
c) $\mathbf{G} . \mathrm{C} . \mathrm{F}=2 \times 5=10$,
d) L.C.M $=2 \times 5 \times 2 \times 5 \times 3=300$
2) a) $x=12$,
b) $y=5$,
c) $\mathbf{G . C . F}=2$,
d) L.C.M $=2 \times 2 \times 5 \times 5 \times 3=300$
3) 


G.C.F $=7$
L.C. $M=2 \times 3 \times 7 \times 5=210$
4) The number of pieces $=875 \div 7=125$ pieces
5) The price of each box $=2000 \div 16=125$ L.E.

The price of each kg . of mango $=125 \div 5=25$ L.E.
6) What left of the cake is:1 $-\frac{1}{4}-\frac{1}{3}=\frac{5}{12}$ of the cake.
7) a) The order is: $-9,-5,-4,0,3,4$
b) The order is: $-9,-\frac{7}{2},-2 \frac{1}{4}, 0,5$
8) a) The order is: $2 \frac{1}{2}, \frac{3}{4}$, zero , $-\frac{7}{12},-\frac{7}{2}$
b) The order is: $\frac{3}{5}, 0.4$, zero $,-\frac{7}{10},-\frac{5}{4}$
9) a) $\frac{3 \times 5}{4 \times 5}=\frac{15}{20}=\frac{150}{200}$

$$
\frac{4 \times 4}{5 \times 4}=\frac{16}{20}=\frac{160}{200}
$$

So; $\frac{151}{200}, \frac{152}{200}, \frac{153}{200}$ are between $\frac{3}{4}$ and $\frac{4}{5}$
(The answers may vary)
b) 3.200
3.230

So; 3.201, 3.202, 3.203 are between 3.2 and 3.23
(The answers may vary)
10) He will be : $x+6$ years old

## Q1) Choose the correct answer:

1- Divide 8100 by 25 , the quotient is
a) 300
b) 324
c) 325

2- The GCF of 24 and 30 is
a) 2
b) 3
c) 6

3- The LCM of 12 and 16 is
a) 48
b) 192
c) 32

4- ................. is a multiple of any number.
a) 0
b) 1
c) 2

5- ................. is a factor of any number.
a) 0
b) 1
c) 2

6- $\quad 4(2+7)=8+$
a) 21
b) 36
c) 28

7- The inverse additive of number -6 is
a) 0
b) 6
c) -6

8- The inverse additive of number 14 is $\qquad$
a) 0
b) 14
c) -14


9- Positive numbers are .............. numbers
a) Counting
b) Natural
c) Integers

10- Positive numbers \& zero are .............. numbers
a) Counting
b) Natural
c) Integers

11- Positive numbers, zero, and negative numbers are numbers
a) Counting
b) Natural
c) Integers

12- Integer numbers contain decimals and fractions.
a) True
b) False

13- A class of 27 students has 15 girls. What is the ratio of girls to boys?
a) $4: 5$
b) $5: 4$
c) 12

14- Which of the following relatively prime number
a) 4 and 8
b) 12 and 18
c) 9 and 4

15- $20+25=$.
a) $2(0+5)$
b) $5(5+5)$
c) $5(4+5)$

16- $|-5|=$.
a) 5
b) -5
c) 0

17- The smallest natural number is
a) -3
b) 1
c) 0

18- The greatest negative integer is
a) -11
b) -7
c) -2

19- The number -2.5 in the form of $\frac{a}{b}$ is
a) $-\frac{25}{100}$
b) $-\frac{25}{10}$
c) $-2 \frac{25}{100}$

20- The rational number between -3.6 and -3.7 is .......
a) -3.71
b)-3.62
c) -3.59

21- The opposite of $\left|-\frac{1}{3}\right|$ is
a) $\frac{1}{3}$
b) $-\frac{1}{3}$
c) 1

21- The coefficient in the expression $8 \mathrm{v}+2$ is
a) 2
b) 8 v
c) 8


22- Twice the sum of a number and 6 is
a) $2 x+6$
b) $2(x+6)$
c) $2(x-6)$

## Q2) Complete your answer:

$1-3 \frac{2}{5}+4 \frac{3}{7}=$
$2-6 \frac{4}{5}-3 \frac{9}{10}=$
3- 28,485 divided by $42=$
4-The following ratio 8:10 in the simplest form

5-The divisor of the equation $16,692 \div 53=321$ is

6-The LCM and GCF of 15 and $10=$.
$7-3 \times(2+5)=\ldots \ldots . x \ldots . .+\ldots \ldots . . . . . . .$.
8-In the opposite Venn diagram, The GCF is , And the LCM is
9-The dividend in this equation:
16,692 divided by $52=321$ is

10- $|-2|+|-7|=$
11- $|-15| \div|3|=$.
$12-\quad-|-2|=$
13-
$-(-2)=$
14- The smallest non negative integer is
15- The rational number between $\frac{1}{4}$ and $\frac{1}{5}$ is
16- If $\left|x^{\circ}\right|=5$, then $x=\ldots \ldots \ldots \ldots$ or
17- The smallest counting number is

18- The smallest natural number is

19- Set of natural numbers is ......... set of counting numbers.

20- Set of counting numbers is ......... set of rational numbers.
21- $\frac{1}{4}$ is $\ldots \ldots \ldots \ldots$ to set of integers.


22- The constant in the expression $8 \mathrm{v}+7 \mathrm{n}+2$ is

## Q3) Compare The following:


$|-15|$
$0 \quad-1-\frac{1}{2}$
7.43 ---1 7.423
$-\frac{19}{5}$
$|-7| \underset{-1}{---1}|7|$

$\frac{1}{2}$
$\frac{11}{3} \quad \frac{5}{7}$

## Q4) Represent the following numbers in the

 number line then arrange them from greatest to smallest:$$
4, \frac{9}{2},-\frac{5}{2},-5,4 \frac{1}{2}, 0,1 \frac{3}{4}
$$

## Q5) Story problems:

1- Hossam paid 3,492 L.E. to buy 36 boxes of chocolate. Find the price of each box.

## 2- Sara studies $x$ hours daily, write an algebraic

 expression for the number of studied hours in a week.3- Ola is giving her friends pencils and special erasers. The store sells pencils in boxes of 8 and erasers in boxes of 10 . If Ola wants the same number of each, what is the minimum number of pencils that she will have to buy?

4- If the ticket of entering a car park is 25 L.E. and 10L.E. for each hour you spend.
a) Write an algebraic expression to represent the relation between total cost and the number of hours.
b) What is the cost of spending 8 hours in the park?

